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Research Article

# Online professionalism and Facebook – Falling through the generation gap

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## Abstract

**Background:** Facebook is the most popular social networking site (SNS) worldwide. The growing popularity of SNSs brings ‘e-professionalism’ to the forefront.

**Aims:** To assess Facebook use, publicly accessible material and awareness of privacy guidelines and online professionalism by students, foundation year doctors (FYDs) and senior staff grades (SSGs).

**Methods:** It was an ethical risk to access publicly available information online as many users do not appreciate the lack of privacy involved, therefore a cross-sectional survey was undertaken. Participants included 42 students, 20 FYDs and 20 SSGs from the Severn Deanery (UK).

**Results:** All 42 students and 20 FYDs had Facebook compared with 6 (30%) SSGs. Of

students (88%) reported colleagues behaving unprofessionally online with 16 FYDs (80%) but no SSGs. 32 students (76%) felt their professionalism was threatened online, alongside 18 FYDs (90%) and 2 SSGs (33%). Only 11 students (26%), 10 trainees (50%) and no SSGs were aware of guidelines.

Conclusions: Professionals lack awareness of their professional vulnerability online. They are not careful in restricting access to their posted information and are not mindful that the principles of professionalism apply to SNSs.

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## Introduction

Professionalism is inherently a difficult concept to define, objectively measure or even teach. Although there is widespread debate, most commentators agree that principally professionalism is, 'Sustaining the public's trust in the medical profession' (Cohen [2006](#)).

This trust is underpinned by the values, behaviours and duties of a doctor and the suggestion that moral communities are built on the trust that members will look beyond personal interests and individual concerns (Pelligrino [1992](#)). However, this central trust is under considerable threat by the use of social networking sites (SNSs) such as Facebook. The medical profession is not immune to the rapidly growing influence of web-based technology that has impacted considerably on how individuals communicate personally and professionally. Other professions are struggling with similar issues (Coutts et al. [2007](#)), a potential cause being that interaction in virtual communities has eroded elements of social trust, responsibility and accountability (Garner & O'sullivan [2010](#)). Most recently, the press association under the Freedom of Information Act obtained figures showing that more than 150 police officers in England and Wales faced disciplinary action over their behaviour on Facebook and one officer was sacked in a three-year period (BBC [2011](#)). The blurring of the line between professional and private life is therefore clearly not unique to medicine, however the oath taken by doctors forms the basis of the social contract between the profession and society and in return grants medicine the right to self-regulate; the blurring of these social boundaries places this privilege under threat.

Whilst there is considerable literature and guidance for medical professionals concerning issues such as sexual boundaries and financial relationships, it is only recently that research on the ethics and implications of the use of online technologies has started appearing. In a sense, the online rulebook is unwritten and there is the concern that those currently in a position to influence guidelines are not the best placed to do so with regards to SNSs. There is also the expectation that elements of professionalism must adapt in unison with societal changes, but SNSs are principally tools of the younger generations and as such it may be that these young medical professionals, who understand how intricately these technologies are woven into the fabric of modern society, are the best-placed to set novel, yet acceptable boundaries.

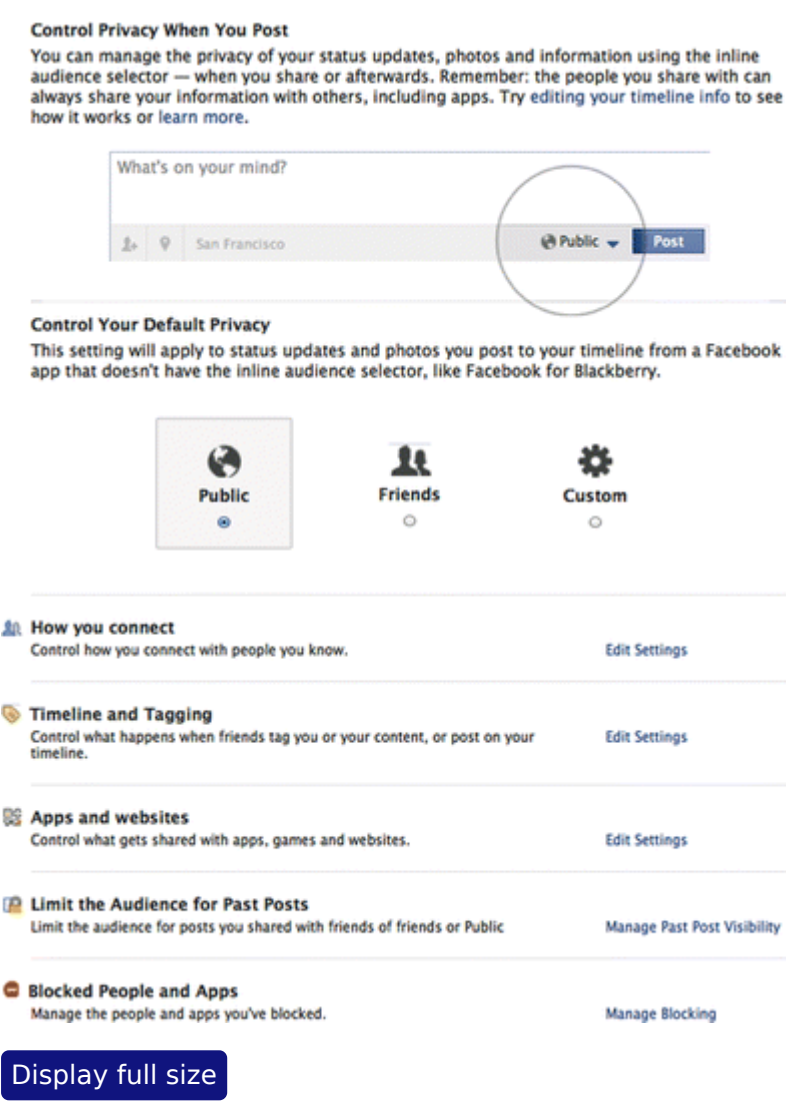
Facebook is the most popular SNS worldwide with over 500 million active users (Facebook Factsheet [2011](#)). The site was founded 7 years ago at Harvard University and its popularity quickly spread internationally and exponentially (Facebook Statistics [2011](#)). Facebook allows users to create a 'profile' – a page through which they share personal information such as photographs, videos, contact details, relationship status, sexual orientation, political views and religious beliefs. The profile also specifies the individual's friends, social calendar and the 'groups' of which they are members as well as a personal 'wall' on which other users can post comments, web-links and media – as such users have relatively little control over the total content of their pages.

Members can, however, activate privacy settings that would allow them to control access to their information. Normally, one must add other members as 'friends' before they are able to see their full online profile. This however relies on users being aware that they must activate privacy settings; otherwise photographs and personal material could be potentially accessible to the wider public. [Figure 1](#) shows the default privacy settings on a new Facebook account (Facebook Privacy Settings [2011](#)). Under changes made in late 2011, users are now able to use an 'inline audience selector' that allows you to decide whether any particular post is visible publicly, to friends, or a customised audience (i.e. the content is blocked from certain users). Additionally, every profile has a default privacy setting, as is shown. However, these changes may potentially overcomplicate the networking experience and unintentionally posts may become visible to the wrong audience through forgetfulness or simple human error.

Furthermore, as illustrated in [Figure 1](#), the user can now control in-depth how they connect with others and how their 'tags' work (videos and photographs) as well as also retrospectively editing the audience of past posts and blocking certain users and

shared with other websites, facilitating personalisation of adverts on Facebook amongst other factors. This is an important aspect of privacy regarding SNS's but sits beyond the scope of this article. Importantly, it is possible to protect yourself sufficiently on Facebook using the aforementioned settings, however, it is the awarness of these options and their necessity that lie at the inherent root of this problem.

Figure 1. The standard privacy settings as seen on a new Facebook profile (Facebook Privacy Settings [2011](#)).



Over the past few years Facebook has developed a culture of constant change and evolution. From the designers perspective this is the continuous improvement of their product, but these changes have also altered the default privacy settings. As a result, many of these sudden changes have been met with widespread public discontentment expressed through the media (BBC [2010](#)). Most recently, Facebook introduced a new type of profile called 'timeline' which transforms the users profile page into a timeline of their networking activity. Whilst this may provide an improved social experience, the

accessibility of past university photos of a senior registrar, a potentially undesirable property, particularly if they have not activated the necessary privacy settings to limit the visibility of past posts.

A recent study at the University of Florida found that social networking with Facebook is common amongst medical trainees, with 44.5% having an account, but only one-third of profiles restricting access (Thompson et al. [2008](#)). A smaller study carried out in the UK at the University of Liverpool found similar results with the majority of students having Facebook accounts but also reported that over half of students reported seeing unprofessional behaviour by colleagues (Garner & O'sullivan [2010](#)). A further study in New Zealand concluded that young doctors were active members of Facebook, however a quarter did not activate privacy settings. This rendered their personal information available to the public including information that might cause, 'Distress to patients or alter the professional boundary between patient and practitioner' (MacDonald et al. [2010](#)). It is important to note that primarily in the United States, and more recently in the UK, there have been media reports of students being disciplined or dismissed as a result of posts on Facebook (Read [2006](#)). The consequences for many of these students are likely to have been unexpected, and certainly unintended, but the lack of awareness of professional responsibility online as well as the lack of guidelines make this an essential area of research. These students were not mindful that the principles of clinical professionalism also apply to the use of SNS's – a potentially widespread phenomena amongst younger professionals and students.

As the numbers of medical professionals and patients using these SNS's soar, it is therefore essential that we define guidelines for online professionalism, aptly described as 'e-professionalism' by Cain ([2008](#)). These guidelines must address both the social and ethical dilemmas that the use of SNSs presents particularly to younger students and doctors, the so-called 'generation Y' (Shapira [2008](#)). For this group of professionals their online identity is a significant part of their lives and abstinence from these forums is not a realistic option, so there is also likely to be a considerable 'generation-gap'.

To our knowledge, no single study has established and compared the extent of Facebook use by medical students, foundation year doctors (FYDs) and senior staff grade doctors (SSGs – Registrars and Consultants). The aims of this study were therefore to:

1. Establish and compare the extent of the use of Facebook and privacy options in each of these groups.
2. Establish and compare the nature of material available to the wider public in each of these groups.
3. Assess the degree of awareness of specific guidance on online privacy and professionalism in each of these groups.

Table

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## Methodology

### Participants

The study sample for medical students was taken from third-year students at the University of Bristol. This is the first year of clinical teaching with high levels of patient contact and so provided a relevant comparison to doctors, whilst an analysis of aspects of professional behaviour was more appropriate to this cohort. All doctors included in this study were NHS employees in the Severn Deanery.

### Design

The cross-sectional survey was carried out using questionnaire forms. The wording on these forms was tailored to the target group, to maintain comparability but ensure relevance (e.g. Are you aware of any advice or regulations for doctors/medical students regarding the use of Facebook). Medical students were approached at 'central study days' (when students are located at one of the Severn Deanery Academies). Doctors were approached at their monthly 'professional teaching' sessions within the deanery. Response categories were categorical (yes or no) and no incentives were offered for the completion of the questionnaire. Data results from the survey were transferred to an Excel Spreadsheet for analysis and simple frequencies were calculated for respondent

characteristics and responses. Observational correlations were assessed using the Kruskal-Wallis statistical analysis and GraphPad Prism.

## Results

### Respondent characteristics

**Table 1** summarises the characteristics of all three groups. As expected, the average age increased with career progression; but, whilst the ratio of men to women was relatively equal in both doctor groups, the medical student sample was 70% female, reflecting the general population of the cohort group. 100% of both medical students and FYDs currently engage in Facebook whilst only 30% of SSGs were members.

**Table 1.** Respondent characteristics

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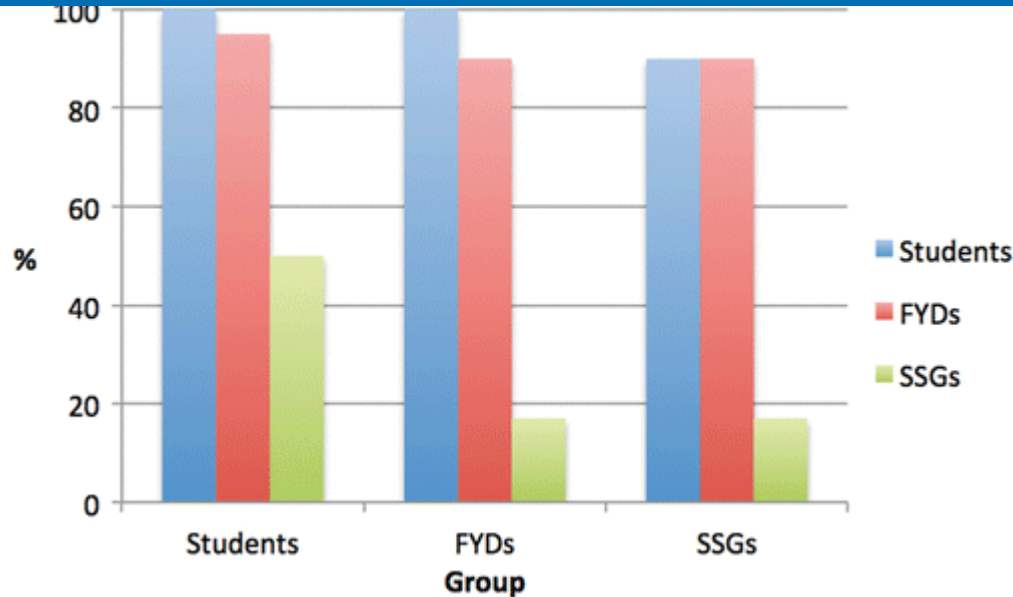


### Facebook activity levels

Of the participants on Facebook, the activity levels were very similar between students and FYDs with 90% of subjects in each of these two groups having used Facebook within the last 24 hours. SSGs were less active with only 50% having used their accounts in the last month (**Figure 2**).

**Figure 2.** Facebook activity levels according to the last point of use.





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## Privacy settings

The majority of students and all of the FYDs used their real names on their accounts, making them readily searchable. Only 50% of SSGs used their real name, but most surprisingly it was the student group at 93% who activated privacy settings the most. Overall, the doctors 'info' and 'wall' pages were more publicly accessible than the students and in the student and SSG groups, the most personal information was included on the 'info' page as presented in [Table 2](#). The higher activity level of students was reaffirmed by 64% of students posting comments or updating their 'status' more than once a month.

**Table 2.** Questionnaire results regarding privacy settings with figures as a percentage (%)

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## Perceptions, implications and future plans of Facebook use

Only 26% of students, 50% of FYDs and none of the SSGs were aware of any advice or regulations regarding the use of Facebook ([Table 3](#)). In those that were aware, this resulted directly in a change of behaviour or account accessibility in 55% of students and 50% of FYDs. 76% of students, 90% of FYDS and 33% of SSGs thought their professional integrity was compromised by the use of Facebook.



**Table 3.** Perceptions, implications and future plans of Facebook use of the respondents recorded in the questionnaire



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36% of students and 70% of FYDs have accepted friend requests from people they do not know that well, whilst 45% students, 60% of FYDs and 67% of SSGs believe there are photos of them on Facebook that could compromise their own professionalism. Interestingly, in comparison to these findings, 88% of students, 80% of FYDs but none of the SSGs agree that they have seen colleagues behaving unprofessionally on Facebook. This may indicate that participants were less likely to self-report their own behaviour, but were more likely to report the unprofessional behaviour of their colleagues online. The vast majority of Facebook users in all three groups intend to continue using Facebook after they graduate, or with career progression, but equally high proportions intend to have privacy settings enabled in the future.

### Perceptions of current guidance and online professionalism

We used the same questionnaire model put forward by Garner and O'sullivan ([2010](#)), but made small modifications to make it applicable to doctors as well as students. Participants were asked how much they agreed with a series of statements. These statements focused on the perception of current guidance specific to Facebook as well as perceptions of online behaviour and professionalism. The results suggest contradictory opinions amongst participants at all three career levels. For example, whilst students are aware of acting professionally, in general they appear not to be aware of the importance and implications of 'e-professionalism'. Similar inconsistencies are seen in both the doctor groups, as shown in [Table 4](#). Furthermore, only 19% of students, 10% of FYDs and 17% of SSGs agree that they are aware of how the GMCs guidelines apply to the use of Facebook. Quite strikingly, 46% of students disagreed that they knew what the medical school would classify as unacceptable behaviour online.

**Table 4.** Respondant perceptions of current guidance and online professionalism



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Statistical analysis of these results showed a significant difference ( $p < 0.05$ ) in response between how much students believed their behaviour on Facebook could impact on their careers and their awareness of current guidelines. This may indicate that those reporting greater knowledge of current guidelines may also consider the issue of professional behaviour on Facebook to be less important, making them more likely to overestimate their current appreciation of guidelines. Interestingly, further analysis shows that there was no significant relationship between reported knowledge of guidelines and whether privacy settings had been activated on Facebook. This may indicate that as things stand, teaching given on the importance of 'e-professionalism' and perceptions of its importance may not be translating into a change in online behaviour, therefore changes in educational approach may be warranted.

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## Discussion

Although the sample sizes in this study are small, the findings are significant and warrant further investigation. We have shown that medical students and FYDs are very active on Facebook and the majority of outcome measures demonstrate the aforementioned generation gap. Furthermore, a significant proportion of subjects at all career levels are not taking the necessary privacy precautions. The nature of the material available to the wider public poses a significant threat to the doctor-patient relationship and the professionalism of the subjects involved. Whilst the vast majority of participants in all three groups report that they intend to continue using Facebook, they also acknowledge the risks posed by the forum to their professional integrity and a high proportion at all career levels feel that their professionalism and that of their colleagues has already been compromised. We also found circumstantial evidence to suggest that current methods of professional education are not translating into improved perceptions of 'e-professionalism' on Facebook. This opens up the scope for improvements in the way 'e-professionalism' is taught or may perhaps suggest a complete change in approach. This would cite grounds for research into how best to adapt current strategies to maximise the efficacy of medical schools, hospital trusts and medical councils internationally in communicating their expectations.

The perceptions of current guidance and what constitutes 'e-professionalism' appear to be greatly varied amongst the three study groups – but this is in itself a key finding and

are not aware of what universities would classify as unacceptable behaviour, whilst at all career levels there is little awareness of how GMC advice directly applies to SNSs. Comparison with other studies of Facebook use in the medical profession is difficult as the majority were undertaken in different countries where cultural differences may become confounding factors. Furthermore, the age of students in different countries (e.g. older students in the USA) is likely to alter responses as the age gap we have identified in the UK would suggest. Furthermore, many of the studies were carried out several years ago and as such the changes to the privacy options on Facebook in 2008, 2010 and [2011](#) may explain the relatively high percentages of activated privacy options we have found amongst our students compared to previously published findings (Thompson et al. [2008](#)). However, the perceptions of current guidance and online professionalism we have identified reflect closely the inconsistencies reported by Garner & O'sullivan ([2010](#)).

The Australian and New Zealand medical and student associations combined to tackle issues similar to those we have raised in this article in their region. A document entitled 'Social Media and the Medical Profession' was produced (Australian Medical Association [AMA] [2010](#)) along with a YouTube video (YouTube [2011](#)). Coupled with this, a code of ethics was added to the good practice guides of each association (Australian Medical Association [AMA] [2004](#); Australian Medical Students' Association [AMSA] [2003](#); New Zealand Medical Association [NZMA] [2008](#)). Their aim was to develop a simple guide for medical students and doctors that explores the various risks posed by online social media.

In the United States the American Medical Association has also produced a concise document outlining their policy on professionalism in the use of SNS's [American Medical Association [AMA] [2011](#)]. In comparison to the efforts of the Australian and New Zealand medical associations, this document is very short and vague in its description, relating normal professional expectations to the online environment. This is a good starting point, as we found this association to be a weakness amongst our three study groups; however, the great advantage of the methods used in Australia and New Zealand is that online media was employed to communicate the guidelines, a strategy likely to obtain greater exposure and in turn greater awareness of 'e-professionalism' and improved guideline compliance. As we found in our study, students were aware of GMC guidelines and in the UK they are given the GMC's booklets on Good Medical Practice – but it is clear that updating these documents to incorporate 'e-

unlikely that students and young professionals read these long documents with great interest or in great depth, and it is therefore reasonable to attempt using SNS's and media websites to deliver the message more effectively to this group.

Until recently such communications have been greatly lacking in the UK. In 2009 NHS information governance produced a document on information risk management on SNS's (Department of Health Informatics Directorate [2009](#)). However, the language in these guidelines was directed more at risks on information governance for the organisation rather than 'e-professionalism'. Although we did not investigate the awareness of guidelines from sources other than the GMC, this document is not easily obtained on the NHS website and is poorly presented and hence its impact is likely to be limited. In the period following this study, the British Medical Association have also published their own social media guidance (British Medical Association [BMA] [2011](#)). These guidelines offer a solid starting point in the UK and borrow from the strengths of the Australian and New Zealand initiative. The language in this document is very precise, addressing ethical responsibilities, the doctor-patient relationship, public versus private life and issues such as Facebook 'friend-requests' separately and specifically. The document also incorporates true case studies which outline the dangers of online exposure and the necessity to employ a cautious and professional attitude online. The supplementation with examples of the actions and consequences faced by colleagues in the past is likely to be an effective way to educate students and junior doctors of the reality of the situation and to act as a deterrent for unprofessional behaviour online.

Whilst the impact of these documents and other approaches to tackle this issue within medical education are yet to be assessed, it is imperative that measures are taken to refine and improve these approaches as the evidence base for their impact grows. What is certain is that current approaches in medical education are not sufficient. A key point to be taken from the initiative in Australia and New Zealand is that medical students were involved in producing the guidelines, following on from the generation gap we have illustrated, this is a critical point in ensuring guidelines are acceptable to the younger generations of medical professionals.

In data collection for this study, all the questionnaires were fully anonymised and therefore presented little ethical risk. This study is borderline with regards to NHS NRES (NREG [2011](#)) criteria but following advice from the University of Bristol Ethics

Macdonald et al. ([2010](#)) controversially undertook their study by examining publicly available information on Facebook and only sought retrospective ethical approval after editorial comments. This was later challenged by O'Hanlon & Shannon ([2011](#)), who put forward the analogy of looking into the window of a house on a busy street. Whilst one could argue that the contents of the room are on public display, they are not intentionally placed in such a position. The owners do not generally expect strangers to catalogue the contents of their home, which would probably lead them to draw the blinds. This is the important distinction between, 'What is intentionally made public and what is private but potentially visible in public' (O'Hanlon & Shannon [2011](#)). In considering this argument, we decided that asking students and doctors to self-report their behaviour was more ethically acceptable despite being of a less rigorous study design, as it is clear that many Facebook users do not appreciate the lack of privacy involved. In fact, it is this exact uncertainty over privacy issues and Facebook that lead to the widespread public interest and media coverage resulting in changes to Facebook's privacy settings (BBC [2010](#)). Research into this area of professionalism is likely to expand internationally and it essential that the ethical risks of examining publicly available information are widely acknowledged, as well as the perceptions of online exposure and the details of the available content itself, all of which are likely to be the subject of such studies.

Limitations of this study include the small sample sizes, its cross-sectional nature and the fact it was reliant on self-reported behaviour although, as explained, this was an ethical necessity. This study was also confined to one deanery in the UK, limiting its generalisability. However, the strengths of this study are that it is the first study of Facebook activity by medical professionals to compare medical students and doctors at different career grades regarding the publicly available material posted by these groups, as well as the perceptions of exposure and awareness of guidelines and 'e-professionalism'. To further this area of research, it would be of interest to assess changes over time and the impact of the novel guidelines introduced by associations such as the BMA. Differences in approaches internationally and sociocultural expectations may also have an impact and so studies comparing the impact of SNS's and medical education approaches to 'e-professionalism' may be of great value in refining techniques through the adoption of successful models. This article does not directly address how medical schools or hospital trusts have dealt or would deal with issues of 'e-professionalism', but it is clear that students are not certain of what is

unwritten the disciplinary consequences remain both obscure and potentially dramatic. A factor that may be easily remedied, if only as simply outlining clearly that ‘e-professionalism’ is akin to professionalism in the working environment.

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## Conclusion

Facebook use by medical professionals at all career levels represents a significant threat to professionalism. The data presented here demonstrates what is likely to be a common phenomena both in the UK and internationally in that medical students and younger doctors lack awareness of their professional vulnerability to posting unprofessional material on Facebook. They are not careful in restricting access to their posted information and they are not mindful that the principles of clinical professionalism also apply to SNSs. Current guidance for medical professionals is not sufficient and thus this is an area of medical education that needs to be specifically targeted. However, the significant generation gap identified poses the question of whether senior medical professionals are the best placed to produce such guidelines. SNSs are primarily a tool of the younger generations, who understand its significance in the social fabric of a rapidly developing society. As such, we conclude that it is essential that medical professionals at all levels of career progression are involved in producing these guidelines.

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Declaration of interest: The authors report no declaration of interest.

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## References

1. Australian Medical Association (AMA). 2004. Editorially revised 2010. AMA code of ethics. [Accessed on 2 January 2012] Available from <http://www.ama.com.au/codeofethics>.

[Google Scholar](#)

2. Australian Medical Association (AMA). 2010. Social media and the medical profession. [Accessed on 2 January 2012] Available from <http://ama.com.au/socialmedia>.

[Google Scholar](#)

3. American Medical Association (AMA). 2011. AMA policy: Professionalism in the use of social media. [Accessed on 2 January 2012] Available from <http://www.ama-assn.org/ama/pub/meeting/professionalism-social-media.shtml>.

[Google Scholar](#)

4. Australian Medical Students' Association (AMSA). 2003. amsa code of ethics. [Accesses on 2 January 2012] Available from <http://www.amsa.org.au/docs/ED/AMSA Code of Ethics.pdf>.

[Google Scholar](#)

5. BBC News. 2010. Facebook reveals 'simplified' privacy changes. [Accesses on 2 January 2012] Available from <http://www.bbc.co.uk/news/10167143>.

[Google Scholar](#)

6. BBC News. 2011. 150 Officers warned over Facebook posts. [Accesses on 2 January 2012] Available from <http://www.bbc.co.uk/news/uk-16363158>.

[Google Scholar](#)

7. British Medical Association (BMA). 2011. Using social media: practical and ethical guidance for doctors and medical students. [Accesses on 2 January 2012] Available from [http://www.bma.org.uk/images/socialmediaguidancemay2011\\_tcm41-206859.pdf](http://www.bma.org.uk/images/socialmediaguidancemay2011_tcm41-206859.pdf).

[Google Scholar](#)

8. Cain J. Online social networking issues within academia and pharmacy education. Amer J Pharm Educ 2008; 72: 1-7

[Web of Science ®](#) | [Google Scholar](#)



9. Cohen J. Professionalism in medical education, an American perspective: From evidence to accountability. *Med Educ* 2006; 40: 607–7

[PubMed](#)

[Web of Science ®](#)

[Google Scholar](#)

10. Coutts J, Dawson K, Boyer J, Ferdig R. 2007. Will you be my friend? Prospective teachers' use of facebook and implications for teacher education. Proceedings of Society for Information Technology and Teacher Education International Conference, Charleston, SC.

[Google Scholar](#)

11. Department of Health Informatics Directorate (2009). NHS information governance, guidance: Blogging and social networking. [Accessed on 2 January 2012] Available from <http://www.connectingforhealth.nhs.uk/systemsandservices/infogov/links/blogging.pdf/view?searchterm=social%20networking>

[Google Scholar](#)

12. Facebook Fact Sheet. 2011. [Accessed on 2 January 2012]. Available from <http://www.facebook.com/press/info.php?factsheet>.

[Google Scholar](#)

13. Facebook Privacy Settings. 2011. [Accessed on 2 January 2012] Available from <http://www.facebook.com/settings/?tab=privacy> (N.B. Facebook profile needed for access to this page).

[Google Scholar](#)

14. Facebook Statistics. 2011. [Accessed on 2 January 2012] Available from <http://www.facebook.com/press/info.php?timeline>.

[Google Scholar](#)

15. Garner J, O'Sullivan H. Facebook and the professional behaviours of undergraduate medical students. *Clin Teach* 2010; 7: 112–115

6. MacDonald J, Sohn S, Ellis P. Privacy, professionalism and Facebook: A dilemma for young doctors. *Med Educ*, 2010; 44: 805–813

PubMed

Web of Science ®

Google Scholar

7. National Research Ethics Guidance [NREG]. 2011. Research guidance. [Accessed on 2 January 2012] Available from <http://www.nres.npsa.nhs.uk/applications/guidance/research-guidance/?entryid62=66984>

Google Scholar

8. New Zealand Medical Association [NZMA]. 2008. NZMA code of ethics. [Accessed on 2 January 2012] Available from <http://www.nzma.org.nz/about/ethics.html>.

Google Scholar

9. O'Hanlon S, Shannon B. Comments further to: Privacy, professionalism and facebook: A dilemma for young doctors. *Med Educ* 2011; 45: 208–209

PubMed

Google Scholar

10. Pellegrino ED. Being a physician: Does it make a moral difference?. *Adv Otolaryngol Head Neck Surger* 1992; 6: 1–10

Google Scholar

11. Read B. Think before you share. Students' online socialising can have unintended consequences. *Chron High Educ* 2006; 52(20)38–41

Google Scholar

12. Shapira I. What comes next after generation X? In: *The Washington Post* 6 July 2008. [Accessed on 2 January 2012] Available from <http://www.washingtonpost.com/wp-dyn/content/article/2008/07/05/AR2008070501599.html>.

23. Thompson L A, Dawson K, Ferdig R, Black EW, Boyer J, Coutts J, Black NP. The intersection of online social networking with medical professionalism. J Gen Internal Med 2008; 23: 954-957

[PubMed](#)

[Web of Science ®](#)

[Google Scholar](#)

24. YouTube. 2011. AMA - Social medial and the medical profession video. [Accessed on 2 January 2012] Available from [http://www.youtube.com/watch?v=T7JWQLgTfw4&feature=player\\_embedded](http://www.youtube.com/watch?v=T7JWQLgTfw4&feature=player_embedded).

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