Abstract:
Social Networking Sites (SNSs) have grown substantially, posing new hazards to teenagers. This study aimed to determine general patterns of Internet usage among Irish teenagers aged 11-16 years, and to identify potential hazards associated with SNS use (see Table 2), including bullying, inappropriate contact, overuse and the associated risk of addiction, as well as issues regarding disclosure of personal information and invasion of privacy. Of SNS users, 16% of males and 5% of females said they had bullied or purposely excluded others through SNSs. This difference between males and females was statistically significant (p=0.0003).

Methods
A cross-sectional study of 474 students at three Irish secondary schools was conducted in February and March 2011. Students were surveyed to determine the general patterns and purpose of Internet usage, parental supervision and limitations, as well as potential hazards associated with SNS use, including bullying, inappropriate and potentially predatory contact, overuse, risk of addiction and invasion of privacy by means of access to personal information. The survey comprised 19 questions. As the target population was the 11-16 year old age group, participants who were 17 or older were excluded, as were those who did not appropriately complete the questionnaire. Therefore, the total study cohort size was 460. Males, females, and combined males and females were compared with each other using Microsoft Excel.

Results
SNSs were frequently accessed by 72% of the total cohort (n=460). Instant messaging (43%) was the next most frequent Internet activity, followed by watching TV/movies (41%), and email (21%). 72% stated that their parents did not limit their access. Of the 157 (28%) who said that their access was limited by their parents, 62 (49%) of them also had access on their mobile phones. Next, this study focused on questions that pertained to SNS usage specifically (see Table 2). Of the 114 males (39%) who were members of one or more SNS, the difference between male and female usage as compared to female membership of SNSs, was statistically significant (p=0.0009). 82% of Facebook members rated their usage as frequent, a higher figure than for those who answered the same for Bebo and Twitter combined (56%). The difference was greater when comparing male to female members. Of the 92% of SNS users who said they had bullied or purposely excluded others through SNSs, was statistically significant (p=0.0003). Of those who felt bullied, 8% admitted to bullying others. Concerning those who had not been bullied only 4% of these also had access on their mobile phones, which was consistent with the overall rate of mobile access (50%). This data suggests that a substantial proportion of children are not supervised while using the Internet, and that parental limitations on use are minimal. The high rate of mobile Internet access identified in this study presents inherent challenges to parents in terms of monitoring and supervision.

Discussion
Over the last decade, the use of SNSs has increased substantially, especially among the teenage population. This has subjected young people to hazards specifically associated with online culture in a way that differs from other forms of communication. Children in this age group primarily use the Internet for the purpose of social networking; 92% are users of one or more SNS, with 72% reporting a high frequency of use of SNSs. Facebook specifically is frequently used by 82%, with 95% of SNS users being members of this site. Study participants primarily accessed the Internet using a shared computer in the home. Despite this, only 2% of these children said that they were supervised while using the Internet. 28% of the children surveyed said that their parents placed limitations on their usage. Of note is that 49% of these also had access on their mobile phones, which was consistent with the overall rate of mobile access (50%). This data suggests that a substantial proportion of children are not supervised while using the Internet, and that parental limitations on use are minimal. The high rate of mobile Internet access identified in this study presents inherent challenges to parents in terms of monitoring and supervision.

One in ten children in this study experienced bullying while using SNSs. Bullying through this medium is of particular concern, as problems faced by children online may not readily come to parents attention. Nearly one third of children who had been bullied felt uncomfortable while using SNSs and, of concern, the actions of adults were responsible for this in 37% of cases, highlighting the significant risk for predatory contact. In terms of quantities using, over one third of the cohort said that they used the Internet for more than two hours per day, and approximately 40% of children spent more than six hours per week using SNSs. Increasing hours of screen time undoubtedly contribute to a sedentary lifestyle, which is of concern given the rising trend in childhood obesity. Finally, it is evident from the results that children in this age group are not hesitant to share personal information online, thereby exposing their private lives and increasing the potential for unintended invasion of their privacy. Furthermore, accessibility of such information potentially renders children vulnerable to unwanted contact from others.

A significant proportion of Irish children employ Internet access as a source of social interaction. A majority subscribe to SNSs, facilitating exposure to hazards potentially detrimental to youth engaging in this type of online culture. It is imperative that modern physicians are aware of this phenomenon, which is very much a part of young peoples lives, and features so prominently in their parents concerns.

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References