



BRIEF TO THE EXPERT PANEL OF THE ROYAL SOCIETY OF CANADA REVIEWING SAFETY CODE 6

A Canadian Teachers' Federation Brief on
Wi-Fi exposure in Canadian classrooms

October 2013



Canadian Teachers' Federation
Fédération canadienne des enseignantes et des enseignants

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The Canadian Teachers Federation (CTF) is a national alliance of provincial and territorial teacher organizations that represent nearly 200,000 elementary and secondary school teachers across Canada. As part of our role, we not only advocate for teachers but for students in their care as well.

Health Canada has established a level they consider as safe for public exposure to Wi-Fi radiation. This public exposure level is used by Industry Canada when determining the safe level of exposure in the workplace. Our concern is there appears to be varying viewpoints as to the potential danger of exposure. We recommend that a more prudent approach be taken especially in workplaces such as public schools where children are required to be present for a significant amount of time.

In September 2013, the CTF undertook an on-line survey of teachers in Canada. We received over 3,800 responses from classroom teachers currently working in Canadian schools. The survey explored three main areas: how Internet is accessed in school and how that access affects pedagogy; information provided by school boards regarding the use of Wi-Fi in school; and, teachers' perceptions regarding the safety of Wi-Fi.

Internet Access in School

The vast majority of teachers reported that their school had access to either a hard-wired connection or both a hard-wired connection and a wireless connection. Only 8.5% of respondents reported they only had access to a wireless connection. When asked which access they would prefer, a majority of respondent teachers (76.6%) preferred access to both a wired and wireless connection.

In terms of the use of internet for instruction, the majority of teachers agreed that, if wireless was present in the school, it was used by both teachers for direct instruction of students and by students for educational purposes on devices that could not connect to the Internet by a wired connection. This being said, the majority of respondents also agreed that the educational objectives could be met with a wired connection (54.1%) and/or with a wireless connection that could be turned off when not in use (79.3%).

Communication with the School Community

One major concern expressed by teachers who responded identified the lack of communication around the use of Wi-Fi technology in the school. Some 58.3% of respondents stated that very little or no effort has been made by employers to inform and educate teachers about the presence and safety of Wi-Fi in school. An even greater percentage of respondents (70.2%) reported little or no effort was made to educate parents. Teachers were not aware of parent communities expressing concern about Wi-Fi in schools. Only 7.3% of respondents indicated they had heard concerns expressed by parents.

Teachers' Perceptions regarding the Safety of Wireless Technology

Respondents were asked the extent to which they were concerned regarding the potential health risks related to the use of Wi-Fi in schools. Approximately one-third of respondents were at least somewhat concerned. The more telling response arose, however, when teachers were asked if precautions should be taken to limit exposure of Wi-Fi to students and teachers. Some 31.5% agreed that precautions to limit exposure should be taken, 30.1% disagreed and 38.4% did not know. There is a lack of education on the issue.

Conclusions and Recommendations

The CTF is concerned about the lack of definitive research regarding the adverse health effects of Wi-Fi radiation. Decisions regarding exposure to Wi-Fi should be based upon sound science. Given the relative “newness” of broad Wi-Fi coverage and the difficulty in controlling variables in this type of research, we propose a prudent approach to the use of Wi-Fi, especially where children are present.

Our poll of teachers clearly indicated that pedagogical needs could be met in schools with an approach that limits exposure to Wi-Fi. For example, many schools use a mobile cart of laptop or tablet computers. That cart could include a wireless access point that is powered on when necessary and turned off at other times. Schools could continue to be “hard wired” and wireless internet access could be provided as needed. Of those teachers who indicated they were not concerned at all about potential health risks of Wi-Fi; one-third thought that at least some precautions should be taken to limit exposure.

Recommendations

That Safety Code 6 include a recommendation for prudent use of Wi-Fi whenever possible including the recommendation to limit consistent exposure in schools by turning off wireless access points when not in use.

That Safety Code 6 exposure thresholds be based upon both thermal and biological effects of exposure to Wi-Fi

Also evident in our polling was the fact that teachers and school communities have not been informed regarding the implementation of Wi-Fi and any inherent potential hazards. In the absence of a definitive statement regarding the safety of Wi-Fi that addresses concerns raised through social and regular media, teachers are rightly concerned for their personal safety and the safety of the children in their care.

Recommendation

That the Expert Panel recommend an education program regarding the relative safety of Wi-Fi exposure and that appropriate resources be developed to educate the public regarding ways to avoid potential exposure risks of Wi-Fi access points and devices.