


PLG Statement on WiFi in Libraries & the Precautionary Principle June 16, 2008

ften unaware of the potential risks to both library staff and the public, libraries have adopted wireless technology as a means to bridge the Digital Divide and in order to fulfill their mission under the Library Bill of Rights.

Research on the health effects of wireless technologies (2.4GHz and 5.0GHz bands) and electromagnetic (microwave) radiation indicates wireless technology, among other effects, may cause immune dysfunction, increased risk of brain tumors and acoustic neuromas, childhood cancers, breast cancer, Alzheimer's disease (European Environment Agency, Bioinitiative Working Group, 2007), and genotoxicity. Research also indicates that public health standards are inadequate in offering guidance on the use of wireless technologies in community spaces.

The Precautionary Principle can act as a policy guide in which to critically debate the risks and benefits of wireless technology. The European Environmental Agency, Bioinitiative Working Group and the International Commission for Electromagnetic Safety through the Benevento Resolution have called for the application of the Precautionary Principle in the use of wireless technology. In the United States, the Wingspread Statement on the Precautionary Principle (1998) states

When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically...

Therefore, exposure to wireless technologies in the above bandwidths is a public health issue that library workers should address philosophically as a profession and directly in terms of daily library operations, programs, and services. European library workers have taken steps calling for such an examination based on the current research on health effects of wireless. The Bibliothèque Nationale de France has forgone installation of a public wireless system and the staff of the Sainte Geneviève Library (Paris V) has called for a discussion on wireless technology safety in university and public libraries based in part on the conclusions reached by the European Environmental Agency BioInitiative Working Group (2007,4, 26):

Although this RF target level does not preclude further rollout of WI-FI technologies, we also recommend that wired alternatives to WIFI be implemented, particularly in schools and libraries so that children are not

subjected to elevated RF levels until more is understood about possible health impacts. This recommendation should be seen as an interim precautionary limit that is intended to guide preventative actions; and more conservative limits may be needed in the future.

Based on this information, Progressive Librarians Guild recommends that via their professional organizations, information workers address the risks of wireless technology in public spaces, take steps in learning about the risks of wireless in terms of exposure and impact on library services, monitor wireless technology in their facilities, critically evaluate and adopt alternatives to wireless technology especially in children's sections of libraries, create warning signage on risks of wifi throughout their libraries, and act as a community resource in the public education on wireless technologies.

Footnotes

- 1 Wireless-B, or "IEEE 802.11b" standard operates on the 2.4 GHz band. Wireless-G, or IEEE 802.11g, using the same frequency band, but capable of higher speeds. Wireless-A (IEEE 802.11a) uses the 5.0 GHz band, a higher data transfer. Wireless-N, using both 2.4 and 5.0 GHz bands, with proposed data transfer capability exceeding wired networks. See "Wireless Standards," <http://compnetworking.about.com/cs/wireless80211/a/aa80211standard.htm>.
- 2 Genotoxic or genotoxicity: capable of causing damage to DNA. See Lai, below, a review of the literature on wireless and genotoxicity.
- 3 Benevento uses 0 to 300 GHz as a baseline for recommendations.
- 4 2400 MHz mentioned in the Bibliothèque Nationale de France press release is synonymous with 2.4 GHz.
- 5 Inexpensive AC gauss meters which measure 1-5 GHz can be found on the Web at stores such as EMF Safety Superstore.
- 6 For example, one alternative is the Panasonic HD-PLC power line network adapter uses electrical wiring (power outlet) as a link between a PC and modem. The adaptor is available through amazon.com.
- 7 Thanks to Carolyn Raffensperger and Ted Schettler at the Science and Environmental Health Network, Rebekah Azen, SJSU SLIS students Abe Ignacio, and Milton John Kleim, Jr. for their comments.

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