BROKEN DOORS:  
STRATEGIES FOR DRAFTING PRIVACY POLICIES KIDS CAN UNDERSTAND

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EXECUTIVE SUMMARY

The goal of this research project is to identify guidelines for the drafting of privacy policies that children and teens can accurately interpret with relative ease. A three-pronged strategy was used to achieve this goal. First, an analysis of the relevant literature on readability and document comprehension was undertaken to identify best practices based on this literature. Second, focus groups were conducted with children and teens in order to examine their experience and practices in the interpretation of privacy policies found on sites which have been identified as favourite kids’ sites (Steeves, 2005). Based on the results of the literature review and focus groups, a set of potential guidelines were identified. The final phase of the research project involved empirical testing to establish the efficacy of the proposed guidelines. The end result of this work is a set of guidelines for the drafting of privacy policies that make a difference, by actively improving the comprehensibility of privacy policies encountered by Canadian children and teens as they surf the Net.

Under both Canada’s Personal Information and Electronic Documents Act and the U.S.’s Children’s Online Privacy Protection Act, the privacy notice or policy is expected to play a significant role in protecting children’s online privacy, because it is one of the primary methods to ensure that children and their parents have enough information to make informed choices about whether or not to reveal personal information. Both Acts have been successful in promoting the presence of privacy policies on the sites kids visit. According to Burkell and Steeves (2005), 49 of the top 50 kids’ sites kids contain privacy policies, and Spears, Seydegart and Zulinov (2005) report that about half of Canadian kids read privacy policies at least sometimes.

However, the presence of privacy policies on sites does not always correlate with a better understanding of the site’s information practices. Empirical evidence suggests that the language of many privacy policies may be difficult for readers to understand. This limits their ability to perform their assigned function – to provide kids and parents with information about the site’s practices so they can make an informed decision about whether or not to release personal information. Since a significant proportion of kids are negotiating decisions about their online privacy on their own, it is even more important that young people be supported in making informed choices through privacy policies they are able to understand.

Children tell us that they are unlikely to read privacy policies because they are long and boring, and they simply provide personal information because they want to enter a contest, win a prize or play a game (MNet, 2003). This leads many to assume that kids do not value their online privacy. But the kids we spoke to in our focus groups painted a very different picture. They indicated that they are uncomfortable with the pervasiveness of online surveillance, but feel disempowered to do anything about it. As one 17 year old girl put it, there are doors on the Internet, but “the doors are broken.” These “broken doors”
leave them open to constant and pervasive monitoring, and they know it. They are often resigned about the resultant lack of privacy, but their resignation masks an underlying distrust of the environment. At first blush, they appear to release information as a matter of course, but their actions reflect a lack of options. For them, the Internet is an all-or-nothing proposition – reveal all your personal information or choose not to participate. Many of them are uncomfortable about revealing personal information in this context, and they express a great deal of distrust regarding the intentions of the organizations that collect their information.

This general distrust permeates their expectations of the privacy policies they encounter online. They expect these policies to make it more difficult for them to discover what happens to their information, and attribute bad will to the drafters. Their perceptions are reinforced by the fact that many of the privacy policies found on kids’ favourite sites are hard to find, long, difficult to navigate and written at a reading level well beyond the level recommended for adults.

The privacy policies on kids’ sites are not unusual. Although privacy policies on many sites comply with accepted guidelines and legal requirements regarding content, this is not enough to ensure that readers are actually informed with respect to their privacy-related decisions. Studies that have used readability formulae to assess the grade-level reading requirements of privacy policies for a variety of websites have determined that privacy policies are written at a reading level beyond the capacity of most adults (Anton et al., 2003; Anton et al., 2004; Graber, D’Alessandro & Johnson-West, 2002; Hochhauser, 2001, 2003a, 2003b; Jensen & Potts, 2004; Turow, 2003; Milne & Culnan, 2002).

Readability analyses, however, tell only part of the story. Readability formulae measure semantic and syntactic complexity, assessing factors such as word and sentence length, and word frequency (Klare, 1974-1975; Entin & Klare, 1985). A good readability score, however, does not necessarily mean that a text is comprehensible (Campbell & Holland, 1982; Davidson & Kantor, 1982; Meyer, 2003) in the sense that readers understand “who’s doing what to whom, when” (Felker, Pickering, Charrow, Holland & Redish, 1981).

Comprehension is the result of building coherent mental representations through the interaction of text-driven and knowledge-driven processes (Goldman and Rakestraw Jr., 2000; Kintsch, 1988, 1998; Kintsch, 2005; Van Dijk & Kintsch, 1983, Salmeron, Cañas, Kintsch & Fajardo, 2005), and is influenced by many factors not assessed in typical readability formulae (Davidson & Kantor, 1982; Entin & Klare, 1985; Meyer, 2003; Redish, 2000; Schriver, 2000), including design elements such as typography and layout and “the dynamic ways in which prose and graphics interact” (Schriver, 2000, p. 140). In addition, readability formulas are devised to evaluate existing texts, and not to serve as guides for writing new texts that are comprehensible (Davidson & Kantor, 1982).

This research identified appropriate guidelines to enhance comprehension from the
following two sources:

- Empirical studies of reading comprehension that experimentally assess the impact of a variety of text, reader, and task variables on reading comprehension
- Feedback from individuals trying to interpret the texts in question

The guidelines are divided into three categories: textual guidelines; structural guidelines; and design guidelines.

### Textual Guidelines

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<tr>
<td><strong>Guideline 1: Choose the simplest words possible.</strong></td>
<td>Familiar words are understood better and faster than unfamiliar words, and comprehensible text should use these simpler words, for example ‘total’ rather than ‘aggregate.’ When a complicated or uncommon word is required, provide a definition for the reader.</td>
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<tr>
<td><strong>Guideline 2: Avoid double negatives.</strong></td>
<td>Sentences that include two negative terms (e.g., not, unless, never, nothing) actually express a positive: saying “We are not going to reveal your information unless the police asks us to do so”, actually means “We are going to reveal your information if the police ask us to do so”. These sentences are more easily understood in their positive form.</td>
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<td><strong>Guideline 3: Use language that makes clear who is doing what to whom.</strong></td>
<td>Passive verbs and nominalizations tend to make it unclear who is doing what to whom. The fact that third parties use information is more clearly evident in the active construction of “third parties use your information” than in the corresponding passive sentence of “your information is used by third parties”. Nominalizations turn verbs into nouns, obscuring action and adding words in the process: thus, instead of the simpler and active verb ‘decide’, a nominal form would be ‘make a decision’.</td>
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<td>Guideline 4: Keep sentences simple and paragraphs short.</td>
<td>People prefer and comprehend better simple sentences and short paragraphs. Long sentences with many subordinate clause, and large blocks of text contain too much information and are intimidating for young readers. Rather than “We will share your personally identifiable information, such as your name and birth date, with third parties, including companies that perform services for us, which have their own privacy policies” write “We will share with third parties your personally identifiable information, such as companies that perform services for us. They have their own privacy policies.”</td>
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<tr>
<td>Guideline 5: Put the main idea of the sentence at the beginning.</td>
<td>Sentences are easier to understand when the main idea occurs at the beginning, and when the primary verb and object are not split by additional information. Use “We share your e-mail address with your permission” rather than “With your permission, we share your email address” or “We share, with your permission, your email address”.</td>
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<tr>
<td>Guideline 6: Place parallel information in lists.</td>
<td>When multiple items - situations, conditions, rules, consequence, etc. - are placed in lists, people read them more easily and find faster the information they need. Use lists with bullet-points or numbers for sentences that contain parallel items, for example “We collect personal information such as your name, email address, and birth date, computer information, such as IP address and operating system, and information about your visits to the site.”</td>
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### Structural Guidelines

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<td><strong>Guideline 7: Arrange information in a logical order.</strong></td>
<td>Information arranged in a logical order is processed more easily. Many logical orders can be used, including: old information before new, important before less important, and general before specific.</td>
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<tr>
<td><strong>Guideline 8: Group related information together and eliminate redundancies.</strong></td>
<td>Related information should appear together in the text, in clearly signalled sections, and repetitions should be eliminated.</td>
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Guideline 9: Provide informative headings.

Informative headings can help locate and understand content. Headings are useful if they provide clear cues about the kind of information that follows, the organization of the document as a whole, and the location of particular content. In a privacy policy, informative headings might be "What personal information do we collect?", and "How do we use your personal information?"

Guideline 10: Start paragraphs with topic sentences.

Topic sentences tell the reader what the paragraph is about, thus facilitating comprehension of main points. They also help readers who scan texts to find accurate information fast. Use clear topic sentences that give readers enough information to know what to expect in the paragraph, but do not overwhelm them with too many details.

Guideline 11: Use overviews or tables of contents to represent the structure the text.

Overviews or tables of contents help readers ‘see’ the structure of the text. In an online setting, the headings in the overviews can be hyperlinks: by clicking on them, readers can go directly to the information they look for.

Design Guidelines

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<td>Guideline 12: Use 12-14 font size, and typefaces designed for web or preferred by kids.</td>
<td>People can read better on screen 12 to 14 size fonts and typefaces designed for web, such as Verdana, Georgia and Trebuchet; children prefer Arial and Comic.</td>
</tr>
<tr>
<td>Guideline 13: Leave enough white space.</td>
<td>Plenty of white space helps readers’ eyes rest and emphasizes important passages in the text.</td>
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<td>Guideline 14: Use, but don’t overuse, emphasis techniques.</td>
<td>Emphasis techniques, such as colour, indentation, size, shape and boldface, enhance comprehensions when not overused.</td>
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To test the impact of the guidelines on the comprehensibility of privacy policies, we used two primary measures: a comprehension test; and an information location task. For the comprehension test, we selected excerpts from three of the top 10 sites kids report as favourites, and rewrote them according to the guidelines. We then developed a questionnaire that tested knowledge on various aspects of the shortened original and the revised policies, and asked the children to identify which they would prefer to read. We also
asked them to identify the information within each policy that answered each of the following questions: What information does the site collect about you?, What does the site do with the information they collect about you?, and Who does the site share your information with? They performed this task by highlighting the relevant information, using a different colour for each question.

The results of the experimental testing are unequivocal: the revised policies are easier to understand and they are preferred by our participants. Participants using the revised version were better able to identify the information that (according to the policy) is collected by the site, and they performed better on the overall comprehension test. The participants overwhelmingly preferred the rewritten version, pointing out that they had a better structure, related information grouped together, bullet-point lists, short paragraphs and clear headings, definitions for difficult words/technical terms, and that they generally looked friendlier, “easy on the eye,” and “less intimidating.”

In our focus groups, participants were encouraged to actually read privacy policies, and the discussion that ensued helped them to clarify difficult language and vague concepts. In the context of these interactions, a remarkable thing happened: the young people who expressed so much resignation and cynicism about their online privacy began to ask questions about privacy, about privacy practices, and about privacy-related choices. When they spent time thinking about the policies themselves, the young people who participated in this research noted what was missing from the policies they were reading, what was implicit, and what was vague. They moved from resigned acceptance of those practices toward an engaged and critical analysis.

Such an engaged and critical analysis is at the very core of informed choice. Knowing what information is collected, how it is used, and with whom it is shared, young people might still decide to offer their personal information for access to the games and social networking sites they want, but their decision will be informed. Comprehensible privacy policies are obviously key to this process, for these are the documents that can and should tell users what they need to know about information collection and use. The guidelines developed in this research, when followed, will result in privacy policies that better achieve the critical goal of informing readers about information practices.
INTRODUCTION

Youth are participating online in ever-increasing numbers, in many cases without direct parental supervision. Their most common online activities include instant messaging, downloading and listening to music, doing homework, and playing games, and many of these activities lead them to commercialized web sites that collect and use personal information (Steeves, 2005). While we might hope and even assume that parents are vetting these sites with respect to privacy considerations (Turow, 2000), there are many reasons to suspect that this is not the case. These include the reality that children and teens are often more sophisticated than their parents with respect to the Internet, and they often actively evade parental supervision of their Internet activities (Livingstone & Bober, 2003, 2004). As a result, young people are in many cases independently negotiating decisions about their online privacy. It is important, therefore, that they be supported in making informed choices regarding their online privacy through privacy policies they are able to understand.

Steeves (2005) recently identified the top 50 favourite sites of Canadian children and teens. Consistent with previous research on websites frequented by youth (Turow, 2000), the majority of these sites post privacy policies (Burkell & Steeves, 2005). The links to these policies, however, are often indistinct and difficult to identify, and the policies tend to be long and written at a reading level more appropriate for university graduates than for typical Internet users (many of whom are not university graduates), let alone children or teens (Turow, 2000; Steeves and Burkell, 2005). This last characteristic – that of being written at a very high reading level – is shared by privacy policies on sites intended primarily for adults (Antón, Earp, Bolchini, He, Jensen & Stufflebeam, 2003; Fanguy, Kleen & Soule, 2004; Jensen and Potts, 2004); thus, the problem of the understandability of privacy policies is a general one. This issue, in fact, was flagged in a recent report by CIPPIC that examined compliance with Canadian data protection laws (CIPPIC, 2006). In their report, CIPPIC suggested that attempts be made to identify objective standards for “generally understandable” policies that do not require “unreasonable effort” for comprehension and interpretation (CIPPIC, 2006).

This project represents a step in that direction, focusing on the interpretation by Canadian children and teens in grades 4 to 11 of the privacy policies they encounter in the online context. While this research is specifically targeted to the experience and needs of youth, many of the results will have applicability to wider audiences, and thus this research will help inform the development of more consumer friendly privacy policies for all Internet users.

The goal of this research project is to identify guidelines for the drafting of privacy policies that children and teens can accurately interpret with relative ease. A three-pronged strategy was used to achieve this goal. First, an analysis of the relevant literature on readability and
document comprehension was undertaken to identify best practices based on this literature. Second, focus groups were conducted with children and teens typical of Canadian children and youth who use the Internet in order to examine their experience and practices in the interpretation of privacy policies. Based on the results of the literature review and focus groups, a set of potential guidelines were identified. The final phase of the research project involved empirical testing to establish the efficacy of the proposed guidelines. The end result of this work is a set of guidelines for the drafting of privacy policies that make a difference, by actively improving the comprehensibility of privacy policies encountered by Canadian children and teens as they surf the Net.

1 See Appendix A for a detailed description of the methodology used.
2 See Appendix B for a detailed description of the methodology used and tabulations of the results.
REGULATING KIDS’ ONLINE PRIVACY

Maximizing Internet penetration into homes and schools has been a consistent theme of Canadian public policy since the mid 1990s, and special emphasis has been placed on connecting Canada’s children (Canada, 1994; Manley, 1999). In 1999, Canada became the first country in the world to provide Internet access to every school and public library within its borders, and by 2002, 73 per cent of Canadian households with children were connected to the Net (Statistics Canada, 2004). By 2005, that number had risen to 94 per cent, approximating universal access (Spears, Seydegart & Zulinov, 2005).

Canada’s children are now among the most connected in the world, and over 99 per cent of them use the Internet regularly (Media Awareness Network, 2001). As former Minister of Industry, John Manley, noted in 1999, Canada’s investment in connecting kids is expected to bring significant returns in the long run: “This achievement will spin off enormous benefits. In this case, Canadian children will be able to ride a wave of technological change that is revolutionizing both the educational system and the workforce they will soon enter.” By providing kids with access, we hope to open up a world of knowledge and prepare them for the complex informational infrastructures of a wired society.

However, the Internet also exposes children to surveillance in new and unprecedented ways. Almost all (94%) of the top 50 sites Canadian kids report as favourites collect their personal information; and 90 per cent of those sites encourage kids to reveal their identity by registering with the site (Burkell & Steeves, 2005). Many of these sites seamlessly integrate surveillance into play and chat, in effect naturalizing the release of personal information for children (Montgomery 1996, 1999, 2001; Steeves, 2006). Kids’ developmental predisposition to talk about themselves also ensures a steady stream of personal information for sites that collect their information (Linn, 2004). More than half of Canadian kids surveyed in 2005, for example, indicate that they will reveal their real name and email address or street address to get access to online games (51%) or a free email service (67%) (Steeves, 2005). There is also evidence that kids are less likely to distinguish the commercial nature of these kinds of informational exchanges, confusing them with play (Montgomery, 1996, 2001).

Concerns about children’s online privacy were first raised as policy issues in 1996, when the US-based Center for Media Education passed its report, Web of Deception: Threats to Children from Online Marketing (Montgomery, 1996). After a series of Congressional hearings, the Children’s Online Privacy Protection Act (COPPA) was enacted by the American Congress on October 21, 1998.

The American legislation is relevant to Canada for three reasons. First, it has set the standard with respect to kids’ sites in general, and a number of Canadian sites have
modified their information practices to accommodate a similar regime. Second, the vast majority of sites that Canadian kids visit are American in origin (Spears, Seydegart & Zulinov, 2005) and, as such, are subject to COPPA. Last, it provides a model for adapting data protection principles to the specific needs of children.

COPPA relies upon a modified set of fair information practices to protect children’s online privacy. The legislation applies only to web sites directed at children that collect personal information from children under the age of 13. Operators of these sites are required to obtain verifiable parental consent before collecting information from a child. The primary method for the operator to inform parents of its practices is to post a privacy notice in a prominent place on its site. Under the Act, the Notice must set out:

- The operator’s name and contact information, including a contact who can respond to queries regarding the site’s privacy policy
- What information will be collected from the child
- How the information will be collected
- Why the information will be collected
- Whether or not the information will be disclosed to third parties and, if so, for what purpose
- An assurance that the operator will not require a child to disclose more information than is reasonably necessary to enable the child to participate in a specific activity
- How the parent can access the child’s record
- How the parent can have the child’s record deleted

The privacy notice therefore plays a central role in this framework. It is the tool that provides children, and parents of children under 13, with enough information to make

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3 See www.ytv.com, for example, which asks for verifiable parental consent for children under the age of 16.
4 To determine whether or not a site is “directed at children” and therefore subject to COPPA, the Federal Trade Commission examines the “subject matter; visual or audio content; the age of models on the site; language’ whether advertising on the Web site is directed to children; information regarding the age of the actual or intended audience; and whether a site uses animated characters or other child-oriented features” (US, 2004). This restricts the value of COPPA, especially in light of the fact that only one per cent of the top 500 favourite sites are specifically designed for children or families (Steeves, 2005).
informed choices about whether or not to reveal personal information.

Although Canadian private sector privacy legislation does not specifically address the needs of children, the Personal Information Protection and Electronic Documents Act (PIPEDA) is also a consent-based regime that incorporates the principles of openessness and accountability. Under Principle 4.8, organizations must ensure that individuals can acquire information about an organization’s information practices “without unreasonable effort” and “in a form that is generally understandable”. The information to be made available must include:

- The name and contact information for the individual to whom complaints or inquiries can be made
- What information is collected about an individual
- How the information is used
- Whether the information will be released to related organizations
- How an individual can access his or her record

Individuals also have the right to “a copy of any brochures or other information that explain the organization’s policies, standards, or codes.”

Accordingly, under both Canadian and American legislation, the privacy notice or policy is expected to play a significant role in protecting children’s online privacy, because it is one of the primary methods to ensure that children and their parents have enough information to make informed choices about whether or not to reveal personal information. The Office of the Privacy Commissioner (2004b) puts it this way: “The law requires organizations to ... have personal information policies that are clear, understandable and readily available (emphasis added).”

COPPA and PIPEDA have been successful in promoting the presence of privacy policies on the sites kids visit. According to Burkell and Steeves (2005), 49 of the top 50 kids’ sites contain privacy policies, and Spears, Seydegart and Zulinov (2005) report that about half of Canadian kids read privacy policies at least sometimes.

However, the presence of privacy policies on sites does not always correlate with a better understanding of the site’s information practices. Turow (2003) reports that 57 per cent of

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5 The remaining site contained a link marked “Privacy Policy” but, at the time of the study, the link was dead.
American adults incorrectly believe that the mere presence of an online privacy policy ensures that any personal information that the sites collects will not be shared with other organizations. Although 47 per cent say they think privacy policies are easy to understand, two-thirds of the people who believe this also – incorrectly – believe a site will not share their data. Turow warns that:

…the overwhelming majority of US adults who use the internet at home have no clue about data flows – the invisible, cutting edge techniques whereby online organizations extract, manipulate, append, profile and share information about them. Even if they have a sense that sites track them and collect individual bits of their data, they simply don’t fathom how those bits can be used. In fact, when presented with a common way that sites currently handle consumers’ information, they say they would not accept it (ibid).

Parents are no different than other adults: “Like most others, most parents are concerned, confused, and conflicted about internet privacy” (ibid).

The reliance on direct parental supervision in both COPPA and (by implication) in PIPEDA is also out of step with what we know about children’s online use patterns. Spears, Seydegart & Zulinov (2005) report that only 13 per cent of children surveyed are “mostly” with an adult when using the Internet and, among the youngest respondents (in grades 4-5), 73 per cent are “sometimes” or “usually” alone when they use the Internet. Accordingly, a significant proportion of kids are negotiating decisions about their online privacy on their own. It is therefore even more important, if COPPA and PIPEDA are to be successful, that young people be supported in making informed choices through privacy policies they are able to understand.

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6 The applicability of the principles set out in PIPEDA to children’s web sites is complicated by the fact that minors have a diminished capacity to enter into contractual agreements. However, the Office of the Privacy Commissioner of Canada (2004a) has indicated that consent for the collection, use and disclosure of a minor’s personal information may be obtained from a legal guardian, which implies that parents play a pivotal role in regulating their children’s online privacy.
DO KIDS CARE ABOUT THEIR PRIVACY?

It is unfortunate, then, that children tell us that they are unlikely to read privacy policies because they are long and boring: instead of reading the policies and making an informed decision, children simply provide personal information because they want to enter a contest, win a prize or play a game (MNet, 2003). This leads many to assume that kids do not value their online privacy. Cheskin Market Research’s Insight Series on Digital Experience and Youth puts it this way:

Youth typically have a different view of privacy than adults. Kids, teens and young adults value privacy when it protects their secrets or shields their behaviour, but they willingly trade it for other values. For example, while IM provides instant group connectivity, it also affords surveillance. You cannot have one without the other. Most kids, teens and young adults don’t find this troubling. Their sense of personal vulnerability is low. The adult population is much more sensitive to the privacy invasion (Cheskin, 2002).

However, the kids we spoke to in our focus groups painted a very different picture. It is true that many of them reveal personal information to enable them to “go about their business.” For example, they told us:

You want to play a game, you just enter everything as fast as you can, you get an account, voilà. (Boy, 11)

I probably didn’t thing about it when I first signed up for that. I was just like whatever, I want MSN and stuff, so I’ll just do it. (Girl, 17)

But in this, they are no different from adults. As Whitten and Tygar note, “Security is usually a secondary goal. People do not generally sit down at their computers wanting to manage their security; rather, they want to send email, browse web pages, or download software, and they want security in place to protect them while they do those things (Whitten & Tygar, 1999). Privacy, like security, is not a primary goal of any online interaction, and children’s willingness to “click through” to get to what they want mirrors what we know about adults’ behaviour in similar circumstances.

Moreover, many of the young people we talked to do not participate in a willing trade-off of values. They indicated that they are uncomfortable with the pervasiveness of online surveillance, but feel disempowered to do anything about it. As one girl put it, there are doors on the Internet, but “the doors are broken” (Girl, 17).

It’s like they’re not locked (Girl, 16).
It’s like a door where the latch is broken (Girl, 16).

And it’s like anyone can just turn the handle and then you’re sitting... (Boy, 14)

These “broken doors” leave the children open to constant and pervasive monitoring, and they know it:

They know almost everything about what you’re doing, when you’re doing it, why you’re doing it, how you’re doing it, and who you are (Girl, 12). And the polls even know more about you. They are sort of asking you a bit of personal information … what’s your favourite subject, what do you like most about so and so. You’re kind of selling your information when you fill out one of those (Boy, 11). But you’re not even selling it (Girl, 12).

The company tracks how many people go on the website and from where they’re logging on … but the thing is, unless you have an account, you don’t enter your country. But at the bottom it shows your high score and there is the Canadian flag right there (Girl 12).

They are often resigned about the resultant lack of privacy, but their resignation masks an underlying distrust of the environment. At first blush, they appear to release information as a matter of course:

I think it’s kind of a given cause if you’re on their site, I think they’re going to want to monitor it, regardless, so I kind of figure that they do that anyway (Boy, 13).

You usually just scroll down to the end and say ‘I agree’ (Boy, 14).

But their actions reflect a lack of options. For them, the Internet is an all-or-nothing proposition – reveal all your personal information or choose not to participate.

Like, if we had a choice to say no, I would choose no. We can’t or else we can’t go on the thing for some of them (Girl 15).

Depending on the consequences of saying no cause sometimes if you say no to like download something, it just like can’t do anything with it and then it’s just, yeah (Girl, 14).

Every single site in the world could be taking your IP address right now. If you were like one of those people who, like, cares about their safety, then you shouldn’t log on to the Internet at all. You shouldn’t even use it (Boy, 14).

Many of them are uncomfortable about revealing personal information in this context, and
they express a great deal of distrust regarding the intentions of the organizations that collect their information:

“I’m expecting a catch … cause there’s no such thing as a free lunch. But, well, there’s always something there, within the agreement that you don’t see, but will probably come back. And will be somewhat over the line (Boy, 13).

Well, they’re taking advantage of you, that your friends have a hotmail account, they’re on Messenger, like you have to have Messenger… It’s another way to control you (Boy, 17).

It’s like they’re stalking you on the Internet (Girl 16).

This general distrust permeates their expectations of the privacy policies they encounter online. They expect these policies to make it more difficult to discover what happens to their information, and attribute bad will to the drafters:

Cause like they can tell you stuff that they could like, I don’t know say it in a different way so you don’t know what they’re actually talking about (Girl, 14).

Take advantage of the kids that, cause they can’t read at university level (Boy, 17).

Well no, well that’s all you know, who has your information. You can’t really control what goes, they’ll do what they want with it (Boy, 17).

The first paragraph of the first line makes sense, and then it goes on to ‘materially different’, . . . but then it’s trying to hide something. That’s what my impression is. It’s using complicated language so that we think ‘oh, it must be nothing.’ And so we’re not going into great detail to figure it out. And really, it’s really quite serious what they’re talking about (Girl, 12).

They have loopholes on how to get your information and stuff, they just collect anyway, like all these talk about how they can collect (Boy, 16).
PRIVACY POLICIES ON THE TOP 50 KIDS’ SITES

Children’s negative expectations may be reinforced by the fact that access to privacy policies on the sites they visit is often limited by site design and wording. Burkell and Steeves’ analysis of the policies posted on the top 50 kids sites indicates that the policies are hard to find, long, and written at a reading level that is not accessible to most adults (Burkell & Steeves, 2005).

At the time of Burkell and Steeves’ analysis, all of the top 50 sites had a link to a privacy policy, though one site had a dead link. Forty-seven of the remaining 49 links were clearly labelled “Privacy”, “Privacy Policy” or “Safety and Privacy” (the other two were labelled “Terms and Conditions” and “Legal”). However, more than half of the links were not immediately visible when the site was accessed: 18 required the user to scroll down one to three screen lengths; nine were more than three screen lengths down from the top of the page; and one was located on a page other than the home page. The links were also typically hard to see. Thirty-nine were located at the bottom of the page and one was on a page other than the home page, leaving seven at the top and two on the side. Sixteen of the links were relegated to secondary navigation menus and 25 were either located in the fine print (22) or minimized (3).

The policies themselves were relatively long. The average word count was 1,902, ranging from a minimum of 121 words in Coffee Arcade’s policy, to a maximum of 6,414 in Microsoft’s privacy notice. However, the average page length was somewhat understated, as 23 policies required the user to link to policies on other sites to discover how the information collected on the site would be used and disclosed by others. Navigating through the policies was also relatively difficult. Five policies had no navigation aids, and 35 relied on text headings alone. Only eight had linked navigation to enable the user to move through the document with ease.

The policies were also written at a reading level above the level recommended for adult readers. According to the Flesch Reading Level test, a rating of 60 to 70 is acceptable for adults, and the higher the rating, the better. The average rating on the top 50 kids sites was 36.32, well below the recommended standard. The best site was ebaumsworld, at 58.9 (which is slightly below the acceptable level for adults), and the worst was flowgo at 23.3. The recommended Flesch grade level for documents directed at adults is Grade 8. The top 50 kids’ sites averaged well above that at Grade 11.66, ranging from the low of Grade 9.1 on mxtabs to the high of Grade 12 on MSN.

Accordingly, many of the privacy policies found on kids’ favourite sites are hard to find,
long, difficult to navigate and written at a reading level well beyond the level recommended for adults. This limits their ability to perform their assigned function – to provide kids and parents with information about the site’s practices so they can make an informed decision about whether or not to release personal information.

Table 1 – Top 50 Favourite Kids’ Sites (Steeves, 2005, p. 33)

| 1.  | addictinggames  | 24.  | nexopia <www.nexopia.com> |
| 4.  | ebaumsworld <www.ebaumsworld.com> | 27.  | nba <www.nba.com> |
| 5.  | newgrounds <www.newgrounds.com> | 28.  | teletoon <www.teletoon.com> |
| 9.  | ytv <www.ytv.com> | 32.  | jeuxvideo <www.jeuxvideo.com> |
| 10. | launch <music.yahoo.com> | 33.  | radio-canada <www.radio-canada.ca> |
| 11. | family <www.family.ca> | 34.  | cheatplanet <www.cheatplanet.com> |
| 12. | ebay <www.ebay.ca> | 35.  | gamefaqs <www.gamefaqs.com> |
| 14. | coffeefreakarcade <www.coffeefreakarcade.com> | 37.  | freewebs <members.freewebs.com> |
| 15. | habbohotel <www.habbohotel.ca> | 38.  | funbrain <www.funbrain.com> |
| 17. | flashplayer <www.flashplayer.com> | 40.  | livejournal <www.livejournal.com> |
| 18. | cartoonnetwork <www.cartoonnetwork.com> | 41.  | nfl <www.nfl.com> |
| 19. | shockwave <www.shockwave.com/sw/home> | 42.  | lego <www.lego.com> |
| 20. | muchmusic <www.muchmusic.com> | 43.  | kazaa <www.kazaa.com> |
| 21. | nhl <www.nhl.com> | 44.  | hilaryduff <www.hilaryduff.com> |
| 22. | freearcade <www.freearcade.com> | 45.  | nick <www.nick.com> |
| 23. | mofunzone <www.mofunzone.com> | 46.  | seventeen <www.seventeen.com> |
|      |                               | 47.  | disney <www.disney.com> |
|      |                               | 48.  | flowgo <www.flowgo.com> |
|      |                               | 49.  | gamespot <www.gamespot.com> |
|      |                               | 50.  | vrak.tv <www.vrak.tv> |
**BEYOND READABILITY**

The privacy policies on kids' sites are not unusual. Although privacy policies on many sites comply with accepted guidelines and legal requirements regarding content\(^8\) (Anton, Earp, Bolchini, He, Jensen & Stufflebeam, 2003; Anton & Earp, 2004; Anton, Earp, Vail, Jain, Gheen & Frink, 2004; CIPPIC, 2006; Paasche-Orlow, Jacob & Powell, 2005; Peslak, 2005; Turow, 2001), this is not enough to ensure that readers are actually informed with respect to their privacy-related decisions. Even those policies that do comply with standards are often difficult to understand (Anton et al., 2004; Hochhauser, 2003b). Indeed, some scholars (Hochhauser, 2003b, Milne & Culnan, 2004) echo the same suspicions as the kids in our focus groups; these documents often seem to be written and posted solely for the purpose of compliance with requirements and guidelines, with limited concern regarding whether they are informative and understandable by readers\(^9\).

Empirical evidence suggests that the language of many privacy policies may be difficult for readers to understand. Studies that have used readability formulae such as Flesch, Fry, and SMOG (Flesch, 1948; Fry, 1997; McLaughlin, 1969) to assess the grade-level reading requirements of privacy policies for a variety of websites have determined that privacy policies are written at a reading level beyond the capacity of most adults (Anton et al., 2003; Anton et al., 2004; Graber, D’Alessandro & Johnson-West, 2002; Hochhauser, 2001, 2003a, 2003b; Jensen & Potts, 2004; Turow, 2003; Milne & Culnan, 2002). In Canada and the United States, approximately 28 per cent of the Internet population has high school or less (12 years of education or less: Jensen & Potts, 2004; Statistics Canada, 2005). Typical results of reading level analyses, however, indicate that the reading level of the privacy policies is approximately 14 grade levels (Graber et al., 2002; Anton et al 2003, Anton et al., 2004; Jensen and Potts, 2004) Furthermore, these statistics are likely to overestimate reading ability; studies have shown that an individual’s actual reading ability is usually 3 to 5 grades below the number of years of school completed (Hussey & Gilliland, 1989 and Wilson, 1999 cited in Lee, 1999). Taking this last factor into account, privacy policies tend to be written at (approximately) a level appropriate for individuals with 18 years of education, well beyond a bachelor degree level; less than one-third of internet users (30.6 % of the Internet population in Canada and 26.6 % in the United States) have achieved this level of education.

Readability analyses, however, tell only part of the story. Readability formulae measure

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\(^8\) In addition to COPPA, American sites are subject to the Fair Information Practices Principles formulated by the U.S. Federal Trade Commission, the *Gramm-Leach-Bliley Act* (GLBA) regulating the privacy practices of financial institutions, and the *Health Insurance Portability and Accountability Act* (HIPPA) for healthcare institutions.

\(^9\) A common reason for not reading privacy policies is the perception that they are written to provide protection to the websites or the companies rather than the consumers (Culnan & Milne, 2001).
semantic and syntactic complexity, assessing factors such as word and sentence length, and word frequency (Klare, 1974-1975; Entin & Klare, 1985)\textsuperscript{10}. A good readability score, however, does not necessarily mean that a text is comprehensible (Campbell & Holland, 1982; Davidson & Kantor, 1982; Meyer, 2003) in the sense that readers understand “who’s doing what to whom, when” (Felker, Pickering, Charrow, Holland & Redish, 1981). Comprehension is the result of building coherent mental representations through the interaction of text-driven and knowledge-driven processes (Goldman and Rakestraw Jr., 2000; Kintsch, 1988, 1998, 2005; Van Dijk & Kintsch, 1983, Salmeron, Cañas, Kintsch & Fajardo, 2005), and is influenced by many factors not assessed in typical readability formulae (Davidson & Kantor, 1982; Entin & Klare, 1985; Meyer, 2003; Redish, 2000; Schriver, 2000), including design elements such as typography and layout and “the dynamic ways in which prose and graphics interact” (Schriver, 2000, p. 140).

In fact, some elements that have been demonstrated to make a text more comprehensible actually make it score worse with readability formulas. For example conjunctions or other connective words improve comprehension by making more explicit the relationships between ideas and their organization (e.g. Meyer & Rice, 1989, cited in Meyer, 2003; Pearson, 1974-75), but these same factors lead to longer sentences and thus worse readability scores. The issues with reading level analyses are evident in Table 2. Leaving out linking words (in this case, the word ‘because’) improves the reading level score but makes the text more difficult to comprehend since the reader must infer the connection between the ideas. Writing the sentences backward leaves the reading level score unchanged while rendering the meaning incomprehensible.

\textsuperscript{10} For example, two of the most popular formulas, the Flesch Reading Ease Scale and the Dale-Chall formula (Klare, 1963), measure sentence length and the number of syllables per 100 words or whether words are on a list appropriate for a certain grade level (Redish, 2000).
Table 2 – The Problems with Reading Level Analyses

<table>
<thead>
<tr>
<th>Text</th>
<th>Flesch Reading Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>This text is easy to comprehend because the link between the ideas is made explicit.</td>
<td>8.3</td>
</tr>
<tr>
<td>This text is harder to comprehend. The link between the ideas is not made explicit.</td>
<td>3.8</td>
</tr>
<tr>
<td>Explicit made not is ideas the between link the. Comprehend to harder is text this.</td>
<td>3.8</td>
</tr>
</tbody>
</table>

The final problem with readability formulae is the most significant in the current context. Readability formulas are devised to evaluate existing texts, and not to serve as guides for writing new texts that are comprehensible (Davidson & Kantor, 1982). Studies attempting to improve text comprehensibility by “writing to the formula” (Schriver, 2000, p. 139) have reported mixed results with respect to the understandability of the resulting text (e.g. Cardinal, 2000; Davis et al., 1998; Masson & Waldron, 1994; Young, Hooker & Freeberg, 1990, cited in Hochhauser, 2003b; Duffy & Kabance, 1974 cited in Redish & Rosen, 1991), no doubt because of the issues identified above.

If writing to readability formulae does not guarantee comprehension, how do we identify appropriate guidelines? This research uses two sources to identify appropriate guidelines:

- Empirical studies of reading comprehension that experimentally assess the impact of a variety of text, reader, and task variables on reading comprehension

- Feedback from individuals trying to interpret the texts in question

Empirical studies of comprehension test the comprehension of actual readers in experimental settings that reproduce the real-life context and purpose of reading. These studies measure comprehension by recording reading times, answers to comprehension questionnaires and readers’ thoughts as they ‘think aloud’ while trying to understand a text (Graesser, Millis & Zwaan, 1997). We reviewed these studies to identify candidate guidelines to improve the comprehensibility of privacy policies. These suggested guidelines were then augmented with focus group feedback from participants aged 11-17 who were asked to read and interpret privacy policies taken from the '10 top favourite kids' sites.
The focus group participants identified most of the barriers to comprehension indicated by the empirical research. Those guidelines developed from empirical research that reflected more subtle points of grammar were in some cases not explicitly identified by focus group participants, although in most cases their feedback encompassed these guidelines in broader form. The resulting guidelines are presented in the following section, with the support from experimental studies, relevant comments from focus group participants, and examples (both positive and negative) from the first 10 of the Top 50 Favourite Kids’ Sites set out in Table 1 above.
PROPOSED GUIDELINES

The proposed guidelines are divided into three categories. The first category addresses the effect of textual elements on comprehension, focusing on the specific language used in the text. These recommendations include the factors that are addressed by readability analyses, although they go beyond the relatively narrow set of issues addressed by those analyses. Overall, these guidelines boil down to one simple advisory: Keep the language as simple and straightforward as possible.

The second group of recommendations pertain to the structure of the text, and relate to issues such as headings, overviews, topic sentences, and grouping of related information. These recommendations can also be summarized by a simple rule: Be organized. These structural signals are particularly important in privacy policies, since the texts are difficult and unfamiliar and the interest in the topic tends to be low (Spyridakis, 1971, 1989, cited in Spyridakis & Wenger, 1992; Spyridakis and Standal, 1987).

Finally, the third set of recommendations relates to overall design of the privacy policies. These recommendations address issues such as font, use of white space, and use of highlighting techniques. Again, a simple recommendation captures the essence: Make it look good (and simple). The design aspects of a text, such as typography, layout and spacing, are important first in order to ensure its legibility, and secondly to support and enhance its content and structural aspects (Schriver, 1997). The conditions of legibility are particularly important (and may be different) for text read on a screen rather than from paper (Waltz, 2001 cited in McNamara & Shapiro, 2005; Williams, 2000). Research has shown that reading from computer screens is about 20% slower and more likely to lead to mistakes that reading from paper (Nielsen, 2000 cited in Macedo-Rouet & Rouet, Epstein & Fayard, 2003). Design elements are thus particularly relevant for electronic text.

The specific guidelines are presented in the following section. Many of these guidelines apply primarily when readers are confronted with unfamiliar material of low interest. It is important to note, therefore, that these are exactly the conditions under which young people approach privacy policies: they have little advance knowledge of and little interest in the topic. A school-based survey of more than 5,000 Canadian students in grades 4 to 11 found that half of them never read the privacy policies of the sites they frequent and only 5% read them always (Steeves, 2005). The study demonstrated the limited knowledge young people have about privacy policies, as many of them (from half in grade 7 to one third in grade 11) thought that “If a Web site has a privacy policy, you can be sure that they will not share any personal information they collect from you with others” (p. 44). Given this reality, it is of fundamental importance that privacy policies be written so as to optimally support comprehension. It is our responsibility to make it as easy as possible for children and teens to understand the decisions they are making with respect to their own privacy.
1. TEXTUAL ELEMENTS THAT INFLUENCE COMPREHENSION

Guideline 1: Choose the simplest words possible.
Familiar words are understood better and faster than unfamiliar words, and comprehensible text should use these simpler words, for example ‘total’ rather than ‘aggregate.’ When a complicated or uncommon word is required, provide a definition for the reader.

What the research says:

Many readers, and particularly younger readers who will tend to have smaller vocabularies, are likely to have difficulty understanding words such as aggregate, implement, or utilize. When in doubt, words should be replaced by more familiar synonyms. Thus, for example, aggregate can be replaced with total, implement can be replaced with carry out, and utilize can be replaced with use (Felker et al., 1981). Research has demonstrated that common words, which are typically shorter than their less common synonyms, are easier to understand than uncommon and long words (Hudson & Bergman, 1985, cited in Spyridakis & Wenger, 1992). Thus, professional writers recommend that unfamiliar, often abstract concepts be explained by using well-known, concrete, descriptive words (Kools, Ruiter, Van de Wiel & Kok, 2004). This recommendation is reflected in the plain language movement, which suggests that it is important to avoid or explain complex legal jargon (Kimble, 2002, 2006).

What young people say:

Focus group participants clearly expressed difficulty with the language of the privacy policies. Many participants in all age groups had difficulty understanding the more complex words and specific legal language. This was expressed in general statements such as this, by a 13 year old girl who participated in one focus group:

I think the words they use are too big... They should like shorten them down to make it a little more understandable (Girl, 13).

In some cases, specific words were noted as being problematic

Like ‘aggregate’? I really don’t understand what that means (...). (Girl, 13).

What’s a sub-poena? (Girl, 12). Sub-what? (Boy, 11).

Words that were difficult to understand sometimes invited misinterpretation, even in the relatively controlled setting of the focus groups. Consider this comment by one participant:

I thought ‘third party’ was like, the communist party of Canada (Boy, 11).
His was not the only creative definition of the term ‘third party’, and this comment makes it evident that overly-complex language and lack of definitions invites misinterpretation on the part of readers.

The focus group participants had their own perspective on why such complex language might be used in privacy policies, and this comment typifies the ideas of many participants:

[They] take advantage of the kids that…, cause they can’t read at university level (Boy, 17).

Sites posting privacy policies that are difficult to understand would be well-advised to take note of this comment, since it reflects a lack of trust on the part of users. If policies were written to be transparent and understandable, it is likely that readers (and site users) would feel more empowered to make decisions, and less ‘taken advantage of’ in the interaction.

**Examples:**

Good practice with respect to this guideline involves using the simplest language possible, and providing definitions when complex language or technical terms are required. The privacy policies of web sites frequented by Canadian children and youth include many instances of poor practice with respect to this guideline. At the same time, however, there are positive instances of good practice with respect to language.

Many of the privacy policies include examples of complex language and technical terms without associated definitions. Many privacy policies say that visitors’ 'IP addresses' are used to ‘diagnose’ server problems. The former is a technical term and the latter is a low-frequency word, and if left unexplained, they are likely to be difficult to understand by children and teens. Websites also mention the collection of 'aggregate demographic data,' usually without explaining what this means. Often, fragments of legalese are also left unexplained, such as in:

We will not use or transfer personally identifiable information *in ways that are materially different* from the ones described above (neopets.com).

... as provided under bankruptcy or applicable insolvency laws *or by the enforcement of equitable rights* (runescape.com).

Often, such legal language can be simplified. Where it is required, those drafting privacy policies should consider providing additional text to clarify meaning and intent.

In some cases practices more effectively promote user understanding. Most of the privacy policies, for example, explain the term ‘personally identifiable information’ and give
examples of such information. Candystand.com also explains the notion of ‘aggregate information’:

We define this type of information as information that does not relate to an individual consumer. For example, this information includes how many users visit our website and how many pages are accessed.

Yahoo also explains terms such as ‘cookie,’ ‘beacon’ and ‘IP,’ the only problem being that these explanations send the readers to a different page, which may pose orientation problems.

**Guideline 2: Avoid double negatives.**

Sentences that include two negative terms (e.g., not, unless, never, nothing) actually express positive: saying “We are not going to reveal your information unless the police ask us to do so”, actually means “We are going to reveal your information if the police asks us to do so.” These sentences are more easily understood in their positive form.

**What the research says:**

There are words that are clearly negative, such as *no, not, never, nothing,* and there are words that do not appear negative but have negative connotations, such as *absent, wrong, empty, off, except, until, unless* (Felker et al., 1981). A sentence containing two such negatives becomes in fact a positive sentence. Some such negative word pairs are *not… unless, not… until and not… except.* For example, “You are not eligible unless you are 18 and above,” in fact means “You are eligible only if you are 18 and above.”

The use of negative and double-negative constructions is an important vocabulary aspect that influences comprehension. Clark (1969) and Roberge (1976) (both cited in Felker et al., 1981) showed that positive sentences make reasoning easier. Jones (1966) and Wickens (1984) (both cited in Spyridakis & Wenger, 1992), as well as Vasquez (1981, cited in Kieras & Dechert, 1985) demonstrated that we comprehend better those instructions that are given in positive rather than negative wording (“The light should be on” rather than “The light shouldn’t be off”). Thus, Spyridakis and Wenger (1992) recommend that “negatively phrased statements that are actually conveying positive content should be phrased as positive statements” (p. 4).

**What young people say:**

Although focus group participants do not explicitly note the double negative construction as a barrier to comprehension, they do discuss the problem of understanding policies that, in their words, “contradict themselves”. Thus, for example:
Yeah, usually, like when it says ‘no, we’re not going to use your information, then it says ‘okay we might send it out to these people and these people’. Like, you said first you’re not going to so, you should just keep it to yourself and use it for what you have to use it for (Boy, 15).

This practice leaves users feeling mistrustful of the sites they visit:

*After the first line they change a lot of what they mean. Or they take ‘may’ and really expand on that a bit* (Boy, 17).

*Okay. So, so what’s wrong with using the word ‘may’? Because then when they contradict themselves you feel like they’re lying to you or something, and you don’t trust them even more* (Girl, 14).

**Examples:**

Privacy policies tend to abound in double negative constructions that could be easily restated as positive statements, as demonstrated in Table 3.

### Table 3 – Double Negative Constructions

<table>
<thead>
<tr>
<th>Original Double Negative Construction</th>
<th>Reworded as Positive Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atom Entertainment does not intend to collect any personal information from children under 13 unless Atom Entertainment believes such collection to be permitted by law (addictinggames.com).</td>
<td>Atom Entertainment collects personal information from children under 13 only when Atom Entertainment believes such collection to be permitted by law.</td>
</tr>
<tr>
<td>Yahoo! does not rent, sell, or share personal information about you with other people or nonaffiliated companies except to provide products or services you've requested, when we have your permission, or under the following circumstances… (yahoo.com).</td>
<td>Yahoo! rents, sells, or shares personal information about you with other people or nonaffiliated companies only to provide products or services you've requested, when we have your permission, or under the following circumstances…</td>
</tr>
<tr>
<td>Unless the parent has explicitly consented, we do not (a) use the child's or the parent's personally-identifiable information for any purpose other than to complete the promotion or (b) share the information with third parties except as described above in this Privacy Notice (candystand.com).</td>
<td>Only if the parent has explicitly consented, we (a) use the child's or the parent's personally-identifiable information only to complete the promotion or (b) share the information with third parties only as described above in this Privacy Notice.</td>
</tr>
</tbody>
</table>

In other cases, privacy policies provide effective positive wording of statements that could have taken on a double negative construction:
We will only collect personally identifiable information to the extent we believe it reasonably necessary to serve our legitimate business purposes… (runescape.com).

YTV only uses and discloses a contest winner's name and photograph after receiving prior written consent from the winner… (YTV.com).

The double negative rhetorical construction is not only difficult to understand: it can also be misleading. In particular, as noted by focus group participants, privacy policies include many instances where a practice is first denied at the beginning of a paragraph, with exceptions to this rule buried deep within the body of long and convoluted paragraphs, as in the following excerpt from one of the policies used in the study:

We will not share your personally identifiable information with third parties, aside from entities that perform services for us, such as fulfilling orders or processing payment, that either are bound to comply with our privacy policy or have privacy policies that protect your information unless you have "opted-in" to such sharing. If you have previously opted-in to such sharing under a prior privacy policy version, you are still considered to have opted-in under this Privacy Policy. As stated, and whether or not you have opted-in, Atom Entertainment may use third parties to accept and process orders for merchandise and products, including software, and such third parties may get access to your personal information for the purposes of providing services or products to you on Atom Entertainment's behalf. In addition, if you Opt-Out, as discussed below, we may share that information with third parties who send emails on our behalf so that they do not email you (addictinggames.com).

In these cases, the challenges of interpreting double negation are exaggerated by the physical separation of the related ideas (see Guideline 8). It is easy to miss, in the passage above, the fact that Atom Entertainment does indeed share information with a variety of third parties under a number of different circumstances: teasing out exactly what those circumstances are is, in our experience, a challenge for even the most sophisticated of readers.

This issue becomes even more complicated when double negatives are combined with temporal adverbs and other “modality markers” such as may (Pollach, 2005, p. 228). One telling example is:

We do not disclose to third parties personally identifiable information that is provided, except from time to time, we may transfer, disclose or share such information with third parties who may be engaged by us specifically to handle and deliver certain online activities (e.g. conducting contests and sweepstakes) (candystand.com).
In such a case, readers, especially younger ones, will have difficulty judging if or when the websites engage in the practices described.

**Guideline 3: Use language that makes clear who is doing what to whom.**

Passive verbs and nominalizations tend to make it unclear who is doing what to whom. The fact that third parties use information is more clearly evident in the active construction of “third parties use your information” than in the corresponding passive sentence of “your information is used by third parties”. Nominalizations turn verbs into nouns, obscuring action and adding words in the process: thus, instead of the simpler and active verb ‘decide’, a nominal form would be ‘make a decision’.

**What the research says:**

A sentence is written in the active voice if the subject does the action expressed by the verb (Felker et al., 1981) (e.g. ‘The company collects personal information’) while in a passive sentence the action is done to the subject (*Personal information is collected by the company*). Nominalizations are verbs turned into nouns, such as *collection* (from *collect*), *disclosure* (*disclose*), *verification* (*verify*). Such nouns are often used in public documents with filler verbs to replace simpler verbs, as in “make a decision” instead of decide or “affix your signature” instead of sign. Both passive verbs and nominalizations create an impersonal and bureaucratic tone and can confuse readers as to who does what to whom (Felker et al., 1981).

The negative effect of passive voice and nominalizations is most pronounced when readers have little in the way of expectations regarding the subject. Thus, for example, passive voice has no negative effect in the familiar context of “the mouse was attacked by the cat”; however, when readers encounter a sentence in which a cat unexpectedly attacks a dog, the passive construction of “the dog was attacked by the cat” is more difficult to interpret than the active counterpart “the cat attacked the dog” (Coleman, 1964, 1965 cited in Spyridakis & Wenger, 1992; Heriot, 1969 cited in Spyridakis & Wenger ,1992; Spyridakis and Wenger, 1992). Bostian (1983) found that active passages were read significantly faster than passive voices and nominalizations. This author also emphasized that active voice is “especially advantageous when subject matter is dull and unfamiliar” (p. 640), going on to state that “the combination of unfamiliar, low-interest material and nominal style is disastrous” (p. 640). The context of privacy policies is one that meets all these conditions. Readers, especially younger ones, find the material unfamiliar and boring, and they lack the extensive experience in data collection and use that would lead them to have the sort of clear and settled expectations that would mitigate the negative impact of the passive voice and nominalizations on comprehension.
The main problem with using these constructions in privacy policies is that they obscure the ‘doer’ or ‘agent’ of important actions: when “information is collected” it is unclear who is doing the collection; when “email addresses are shared” a reader could be uncertain even whether they themselves are the ones doing the sharing. When actions are expressed in the passive voice, it is almost as if they are ‘self-caused’ (Pollach, 2005, p. 228). Research has found that comprehension is improved the agent of a relevant verb is added to the sentence (Britton & Gülgöz, 1991 cited in Kools et al., 2004): “Funsite.com collects information”, or even “we collect information”, improves the comprehensibility of the phrase by explicitly declaring the actor. This practice is also recommended by the proponents of plain English (Kimble, 2002; Williams, 1991). Two of the three basic rules identified by Williams (1991) are to express crucial actions as verbs and to locate the participants of those actions, especially the agents, in the subjects of the verbs.

Writing in the active voice also means using personal pronouns, in particular you for the reader (Felker et al., 1981; Kimble, 2002, 2006). When the reader is addressed with the personal pronoun you instead of the visitor, the user or the customer, a friendlier and less bureaucratic rapport can be established. Several studies have demonstrated that people understand and remember better texts to which they can relate on a personal level (Anderson, Reynolds, Shallert & Goetz, 1977; Pichert & Anderson, 1977; Graesser, Higinbotham, Robertson & Smith, 1978, Flower, Hayes & Swarts, 1980 all cited in Felker et al., 1981).

**Examples:**

As with negative constructions, privacy policies tend to abound in passive and nominal verb forms, and these constructions are easily rewritten in the active voice without nominalization as demonstrated in Table 4.

**Table 4: Avoiding Passive Voice and Nominalization**

<table>
<thead>
<tr>
<th>Original Passive Construction or Nominalization</th>
<th>Reworded as Active Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unique identifiers (such as email address) are collected from Web site visitors to verify the user's identity, and for use as account numbers in our record system. Demographic and profile data is also collected at our site. This information is shared with advertisers on an aggregate basis (newgrounds.com).</td>
<td>We collect unique identifiers (such as email address) from Web site visitors to verify the user's identity, and for use as account numbers in our record system. We also collect demographic and profile data at our site. We share this information with advertisers on an aggregate basis.</td>
</tr>
<tr>
<td>The contents of our mailing list will only be disclosed due to law or court demands (FunnyJunk.com).</td>
<td>We only disclose the contents of our mailing list due to law or court demands.</td>
</tr>
</tbody>
</table>
Cookie technology is used on our Site to maximize the Site experience (YTV.com).

We use cookie technology on our Site to maximize the Site experience.

In contrast to the negative examples cited above, in some cases important verbs such as *collect* or *share* are used in the active voice. In these instances, the actor is identified as we, or explicitly as the name of the website. One effect of these constructions is to impart a willingness to assume responsibility for these actions, as illustrated by the following examples:

We *collect and store* information which you voluntarily provide via forms or otherwise on our websites … (runescape.com.)

*Yahoo!* automatically *receives and records* information … (yahoo.com).

Only two of the policies examined do not use personal pronouns to address the users (neopets.com, YTV.com), while one uses them inconsistently, along with words such as user, visitor and customer (newgrounds.com). The other six policies address the users directly, as illustrated by the following examples:

We don't require you to register or provide personally-identifiable information to view our website or play our games (candystand.com).

To enable us to provide a better customer support service we may also ask you provide contact information including: your name, email, postcode and country … (runescape.com).

**Guideline 4: Keep sentences simple and paragraphs short.**

People prefer and comprehend better simple sentences and short paragraphs. Long sentences with many subordinate clauses, and large blocks of text contain too much information and are intimidating for young readers. Rather than “We will share your personally identifiable information, such as your name and birth date, with third parties, including companies that perform services for us, which have their own privacy policies” write “We will share with third parties your personally identifiable information, such as your name and birth date. The third parties include companies that perform services for us. They have their own privacy policies.”

**What the research says:**

Simple sentences express one idea, and contain a subject, a verb and one or two objects (e.g. *The man left the letter on the table*). In general, shorter sentences of this simple form are preferred over longer ones, but there are exceptions to this rule. Eliminating connectives that clarify the relationship between ideas makes sentences shorter, but this
strategy may actually impair comprehension. Compare, for example:

“Joe went to the store. He needed some milk.” with

“Joe went to the store because he needed some milk.”

The second sentence, though longer, clarifies the relationship between the ideas expressed in the two sentences. Changing the second sentence into a subordinate clause through the use of the conjunction ‘because’ is likely to lead to better understanding. At the same time, however, care should be taken not to connect too many ideas in the same sentence, since increasing the number of subordinate clauses can harm comprehension (Forster & Ryder, 1971; Jarvella & Herman, 1972 both cited in Kieras & Dechert, 1985). The important features of comprehensible sentences, therefore, are syntactic simplicity combined with clarity of relationships.

A well written paragraph contains a sequence of related sentences and should not be longer than eight lines. In a web usability study with children grades 1 to 5, Gilutz and Nielsen (2002) found that children were more willing than adults to read instructions, however, they did not like to read long passages of text even when they were interested in the content. Interviews and think-aloud protocols with 5-grade students about educational websites also revealed that they prefer “bold headings and short paragraphs” (MacGregor & Lou, 2004-2005, p. 169).

What young people say:

Many of the focus group participants noted that the policies as originally written were ‘long’ and ‘boring’. They noted the convoluted sentences and long paragraphs, and the negative effect that these overwhelming blocks of text have on motivation to read:

It’s really confusing. It sounds like a big run-on to me (Girl, 12).

I’m on the second part, how they use the information. And there is an entire part, here, a huge paragraph. Right now I’m not inclined to read it because it’s that big (Girl, 12).

No one would want to read a paragraph that long, unless you have to (Boy, 11).

Examples:

Many of the sentences and paragraphs of the privacy policies examined are anything but simple and short. In fact, in some cases entire, and long, paragraphs consist of a single sentence. Consider this example (which also exemplifies other aspects of poor practice, such as the use of double negative construction):
Neopets never gives a user’s e-mail address or other registration information to such third parties without permission, however, if you choose to "opt-in" (click on a box to receive a third party's information), to register with one of our sponsors, or not to "opt-out" (uncheck a checked box that will provide a sponsor with your information), that means you have allowed Neopets to give your registration information and other collected information, including e-mail address, to that third party (neopets.com).

This text can easily be re-written using a bullet-point list (note that this also requires addressing the double negative construction):

Neopets shares your e-mail address or other registration information with third parties, such as sponsors, advertisers and survey companies, but only if you give us your permission by:

- Feedback from individuals trying to interpret the texts in question checking a box to receive information from these sponsors, advertisers, or survey companies; or

- Registering with these sponsors; or

- Not unchecking a box that is already checked that says we can give a sponsor your information

Some policies have examples of better paragraph and sentence structure. Here is a better-written paragraph, although some of the passive verbs could have been written in an active voice:

Cookie technology is used on our Site to maximize the Site experience. For example, we use cookies to keep track of a user's time zone information which allows us to customize our schedule and give accurate show times. We also use cookies to keep track of a user's progress through a game we may have on our Site. No personal information is gathered from these cookies (YTV.com).

Guideline 5: Put the main idea of the sentence at the beginning.

Sentences are easier to understand when the main idea occurs at the beginning, and when the primary verb and object are not split by additional information. Use “We share your e-mail address with your permission” rather than “With your permission, we share your email address” or “We share, with your permission, your email address”.

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What the research says:

Sentences are easier to understand when the main idea is placed at the beginning, followed by any subordinate (or modifying) clauses or phrases. Subordinate clauses or phrases that come before the main clause (While waiting for the bus, I finished reading the novel), or are embedded within the main clause (The student, who was one of the most brilliant people I’d ever met, was concerned about the paper) lead to difficulties in comprehension. Better constructions would be ‘I finished reading the novel while waiting for the bus’ and ‘The student was concerned about the paper, even though he was one of the most brilliant people I’d ever met.’ This recommendation is consistent with research that indicates that comprehension is reduced when subordinate clauses appear before the main clause or split the main clause (Creaghead and Donnelly, 1982, cited in Isakson & Spyridakis, 1999; Fodor, Bever & Garrett, 1974; Hakes & Cairns, 1970; Larkin & Burns, 1977 cited in Felker, Redish & Peterson, 1985). Other research demonstrates that embedded clauses are particularly problematic, causing poor readability (Fry, 1988), and poor recall (Larkin and Burns, 1977, cited in Spyridakis & Wenger, 1992). Recommendations from the plain language movement also suggest that writers avoid placing information before or between the main parts of the sentence, i.e. the subject, verb and object (Felker et al., 1981; Kimble, 2002).

What young people say:

Although focus group participants did not discuss this issue at the level of individual sentences, but rather paragraphs, they did note that often sentences begin with secondary details rather than the main points, or with the exceptions to the usual practice rather than the practice itself. Participants realized that this could be misleading, as they could be missing essential information when main ideas are buried at the end of long sentences or paragraphs.

I’m looking at the first sentence and it starts off with “We will not share your personally identifiable information with third parties.”…And then later down it says “Such third parties may get access to your personal information for the purposes of providing services or products to you”….You read the first line, then you read halfway down, or two thirds down and you find out that they do (Boy, 17).

Examples:

Subordinate clauses placed before the main clause of the sentence take the focus away from the primary information. Embedded clauses interrupt the flow of the main sentences, making them difficult to process.
Table 5: Avoiding Embedded Clauses

<table>
<thead>
<tr>
<th>Original Embedded Clause</th>
<th>Reworded as Shorter Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>In addition, we will take reasonable steps to ensure that third parties to whom we transfer any personally identifiable information in accordance with this policy will agree to provide sufficient protection (runescape.com).</td>
<td>We transfer personally identifiable information to other companies in accordance with this policy. We will take reasonable steps to ensure that these companies will agree to provide sufficient protection.</td>
</tr>
<tr>
<td>We reserve the right to send you certain communications relating to the Yahoo! service, such as service announcements, administrative messages and the Yahoo! Newsletter, that are considered part of your Yahoo! account, without offering you the opportunity to opt-out of receiving them (yahoo.com).</td>
<td>We reserve the right to send you certain communications without offering you the opportunity to opt-out of receiving them. These communications are related to the Yahoo! service and are considered part of your Yahoo! account. Some examples of such communications are: service announcements, administrative messages and the Yahoo! Newsletter.</td>
</tr>
</tbody>
</table>

Often in privacy policies, subordinate clauses placed before the main clause contain complex conditional clauses, such as in:

> If for data protection purposes you are concerned that the personally identifiable information which we hold about you is not accurate, or should you wish to have your personal information removed from our records, please see our Data Protection Policy (yahoo.com).

Such sentences can be made more comprehensible not only by placing the subordinate clause after the main one, but also by arranging the multiple conditions in a list:

Please see our Data Protection Policy if:

1. you think that the personal information which we hold about you is not accurate; or
2. you want us to remove your personal information from our records.

The benefits of using lists are further discussed in the following section.
**Guideline 6: Place parallel information in lists.**

When multiple items - situations, conditions, rules, consequence, etc. - are placed in lists, people read them more easily and find faster the information they need. Use lists with bullet-points or numbers for sentences that contain parallel items, for example “We collect personal information such as your name, email address, and birth date, computer information, such as IP address and operating system, and information about your visits to the site.”

**What the research says:**

When there is a lot of parallel information, such as a set of conditions (If this… and/or this… and/or this…, then this…) or situations (We use your name to… We use your phone number to… We use your email address to…), listing them separately may make information easier to find and read.

Experiments have demonstrated that complex conditional sentences are difficult to comprehend (Wright & Reid, 1973 cited in Felker, Redish & Peterson, 1985). The experiment’s authors suggest as an alternative to list the conditions with bullet points as separate prose statements. The plain English literature also recommends that multiple conditions, rules and consequences be formulated as lists, which should be placed at the end of sentences (Kimble, 2002). Another element that might add to the comprehensibility of lists is the use of enumeration markers. Goldman and Saul (1990b cited in Goldman, Saul & Cote, 1995) found that when ideas were introduced by such enumeration markers, they were selected for rereading more frequently than when they were not signalled. From the plain language perspective, however, Kimble (2006) suggests that writers should avoid Roman numerals and “romanettes” (e.g. iii), because “they are too much like a foreign language” (p. 153).

**What young people say:**

Lists and bullet points were some of the elements that focus group participants mentioned most frequently as suggestions for improving the comprehensibility of privacy policies. They see these devices very useful in keeping the text more concise and less intimidating.

*Point form, I think that would be a lot easier to understand because it’s big blocks of text and it’s hard to read, especially when they keep going on and on (Girl, 16).*

*I think, like, they should just write everything strict, and … list down the points of what you need to know (Boy, 11).*

*If you could just get a list of like all the third parties or whatever who are going to have access if you say yes and if you say no or whatever (Girl, 14).*
Examples:

A large paragraph such as the following, detailing how one company uses different types of personal information, might be not only difficult to comprehend, but also discouraging for readers, who might skip it altogether. Such a paragraph could be improved by dividing it into smaller chunks and by using lists, or even a table, to explain the various uses of information.

We use visitors' personal information for our internal purposes of enabling visitors to enter one of our on-line contests or sweepstakes, to subscribe to our online newsletter, or to inform users of upcoming events and special announcements. We use the e-mail addresses of parents to notify them when we have received information from their children and to give them the opportunity to have their child's name removed from our lists. We do not keep any personal information we obtain through a contest or sweepstakes after the particular event is completed. We use the names and e-mail addresses of subscribers to our e-mail newsletter only to send them the newsletter. Each newsletter contains instructions on how to be removed from the subscription list by sending us a return e-mail. We also use visitor's personal information to track usage and to ensure user are (sic) following the site's Terms and Conditions. Sometimes we will use agents or contractors to help us provide services to our visitors, such as helping us conduct a sweepstakes and sending prizes to the winners. In these cases, we require the agent or contractor to keep the information confidential and to use it only for the specific services they are performing. In addition, please review the section on Collection of Information by Third-Party Sites and Sponsors for a description of the limited instance whereby personal information collected on the site may be supplied to third parties with the consent of the user (Neopets.com).

Other sites, such as yahoo.com or runescape.com make good use of lists with bullet points or enumeration markers such as letters or numbers. Here is one example of using a list even in a relatively short paragraph, although this could be further improved by placing the elements in the list on separate lines:

However, Atom Entertainment may disclose information you provide if required to do so by law or if we have a good faith belief that disclosure is necessary to (1) comply with the law or with legal process served on Atom Entertainment; (2) protect and defend the rights or property of Atom Entertainment; or (3) act in an emergency to protect someone’s safety (addictinggames.com).

An even better example comes from neopets.com:

Parents, please send a letter or postcard to our Privacy Manager at the mailing address provided below if you would like to do any of the following:
access the personally identifiable information that the Neopets.com site has collected on-line from your child,

correct factual errors in such information,

request to have this information deleted, or

request that we no longer collect or maintain such information.

2. STRUCTURAL ELEMENTS THAT INFLUENCE COMPREHENSION

Guideline 7: Arrange information in a logical order.

Information arranged in a logical order is processed more easily. Many logical orders can be used, including: old information before new, important before less important, and general before specific.

What the research says:

While ‘a logical order’ may mean different things for different types of writing, the order of information should be meaningful, allowing readers to connect incoming ideas to what they have read before and to understand how different parts of the document relate to one another (Felker et al., 1981). Haviland and Clark (1974, 1977, cited in Spyridakis & Wenger, 1992) have developed the “given-new” theory of comprehension. Based on their experiments, these authors suggest that comprehension increases when information that is familiar to the readers precedes information that is new to them, and when new information is linked in a clear way with the given information (Kools et al., 2004). Other dimensions along which information can be logically ordered are: important before less important; general before specific; ordinary before extraordinary (Kimble, 2002); permanent before temporary (Felker et al., 1981).

What young people say:

Research participants noted the absence of order in the privacy policies they examined, indicating their difficulty in finding the information that related to questions such as “what information is collected by this site?”. They were particularly disturbed when an obvious logical ordering was transgressed, as in this comment:

*The beginning of the policy should be about what info they collect, what they plan to do with it, instead it talks about when they collect your info* (Experiment participant, 17).
This participant clearly expects an answer to the question “what is collected?” before any discussion of when information is collected.

**Examples:**

The given-new order of information is the one most commonly broken in the privacy policies analyzed, usually by failing to explain unfamiliar terms when they are first used. For example, in the privacy policy for addictinggames.com, the description of the ‘aggregate demographic data’ that they collect comes in a later section, and not when the term first appears in the text. Similarly, in the case of runescape.com, the first mention of the use of ‘cookies’, ‘IP-addresses, alphanumeric IDs and other unique identifiers’ comes without any explanation for the technical terms: an extended explanation of the term ‘cookies’ is given in a section that follows quite far after the first mention of the term.

**Guideline 8: Group related information together and eliminate redundancies.**

Related information should appear together in the text, in clearly signalled sections, and repetitions should be eliminated.

**What the research says:**

Once the writers decide on the structure of a document, all information pertaining to a particular topic should be addressed in one section rather than scattered throughout the document. That way readers interested only in a particular topic can be sure they get all the information on that topic in one section. Moreover, documents can be shorter because the same information is not repeated in different sections.

Support for this guideline comes from research demonstrating that grouping or chunking information together reduces the demands on memory and improves the capacity to retain information (Fuqua & Phye, 1978; Mandler, 1970; McKoon, 1977 all cited in Spyridakis & Wenger, 1992). In addition, plain language advocates recommend writing single-topic paragraphs as a way of eliminating redundant information (Evetts, 2002). Kimble (1994-1995) mentions that the practice of not keeping related material together has been described by legal courts in the United States as “deceptive placement” (p. 81): important information can be effectively hidden from the user if it appears in an unexpected location, far from other information relating to the same issue.

**What young people say:**

In focus group sessions, participants identified redundancy in many of the privacy policies. While they did not cite this as a problem for comprehension, the redundant information clearly adds unnecessary length to policies that are already overwhelming.
They repeated a lot of stuff, over and over again (Boy, 17).

... some of the paragraphs say exactly the same thing as the paragraph before (Girl, 15).

Our research participants also noted that related information is often scattered throughout privacy policies, and indicated that this is a challenge for comprehension.

First they told us the only people who they share the info with is sponsors or other websites. However it also states on another page that they also share it with the police. This in a way is confusing and I think they should have put all of that together instead of on separate pages (Experiment participant, 11).

The participants are well aware that this practice can be misleading, and they actively question the motivation behind separating related information in privacy policies. One participant’s comment reflects a sense that websites are practicing ‘deceptive placement’ in order to mislead users:

Oh yeah, like, I mean, they could have added that to the same part instead of making it a different page, different paragraph... Like, they separated it because they think 'okay maybe the person will only read the first page and they'll think they had enough, well, the details and really important gruesome stuff is on the second page (Girl, 12).

Examples:

The privacy policy of newgrounds.com has three separate sections with the following headings: Cookies, Advertisers, Third Party Advertising and Third Party Cookies. There is overlapping information in these sections, particularly with respect to cookies: for instance, “We use an outside ad company to display ads on our site. These ads may contain cookies,” is placed in the Advertisers section, and not the Cookies one, as one might expect. Moreover, the quoted passage overlaps with another one placed under the Third Party Cookies heading: “In the course of serving advertisements to this site, our third-party ad server, Gorilla Nation, Double Click or their affiliates, or individual advertisers may place or recognize a unique ‘cookie’ on your browser.” Thus it is not clear whether the ad company mentioned in the first passage is the same as the advertisers in the second passage, and whether their cookies are different. To avoid confusion and redundancy, all the information related to cookies could be grouped together under a section called Cookies. Within this section, information could follow a logical order, for instance from an explanation of what cookies are and other general information to specific details about the site’s own cookies and then the cookies places by third parties, such as advertisers.

The worst case of related information not grouped together occurs in Miniclip.com. Their
privacy policy is part of a very long *Terms and Conditions* document. Thus, although the heading ‘Miniclip.com Privacy Policy’ clearly marks the section that *should* contain privacy-related information, details such as how they use email addresses are also placed in a different section of the *Terms and Conditions*, while privacy details about one of their games, the *Miniclip tournaments*, are to be found in a separate document. Thus, when reading the section entitled *Miniclip.com Privacy Policy* the reader does not get a complete picture of the website’s privacy-related practices.

Another problem is that in many of the privacy policies analysed, the sections about the types of personal information collected and the ways in which the website uses the information are not clearly separated and marked. Some mention uses in the former section and repeat that information later. For example, a fragment from the section ‘The information we collect’ in the policy of neopets.com reads:

> When a child under 13 enters a contest, *we will ask for a parent’s e-mail address so that we can notify the parent that we have received personal information from the child*. We do not knowingly collect names and e-mail addresses from children under 13 *without notifying the parent via e-mail and giving them the opportunity to remove their child's name from the list of entries*.

The information italicized above is repeated in the section on ‘How we use the information’:

> We use the e-mail addresses of parents to notify them when we have received information from their children and to give them the opportunity to have their child's name removed from our lists.

If the policy has clear, informative headings (as discussed below), so that the readers can easily find the information they look for, such redundancies are unnecessary. Other websites avoid such situations through different techniques: by organizing the text by type of information collected and explaining under each heading how that information is collected and used (e.g. YTV.com); by using a table (e.g. ebaumsworld.com); or by referring readers to other relevant sections, whenever necessary, rather than repeating information (e.g. neopets.com).

### Guideline 9: Provide information headings.

Informative headings can help users locate and understand content. Headings are useful if they provide clear cues about the kind of information that follows, the organization of the documents as a whole, and the location of particular content. In a privacy policy, informative headings might be “What personal information do we collect?”, and “How do we use your personal information?”
What the research says:

Headings are organizing devices that provide a summary or overview of upcoming content. Headings are useful if they provide clear cues about the kind of information that follows, the organization of the document as a whole, and the location of particular content. In a document about student loans, for instance, informative headings may include: Can I get a college loan? and What other kinds of aid can I get? (Felker, 1981).

In print, headings can help people understand the content that immediately follows (Dooling & Mullet, 1973 and Sjogren & Timson, 1979 both cited in Felker et al, 1981). With respect to hypertext, studies have shown that common print cues, such as page numbers, summaries and headings, can reduce disorientation (e.g. Eveland & Dunwoody, 2001 cited in Macedo-Rouet et al, 2003). Headings were found to help comprehension of hypertext, but only for readers less familiar with the text and who reported low interested in the topic (Schultz & Spyridakis, 2004).

Structural aspects of a text, including headings, are important in creating a ‘friendly’ first impression, to increase likelihood that readers who are uninterested and unfamiliar with the content will read it. Headings, in fact have been found to increase readers’ interest in the text (Lane, Newman & Bull, 1988 cited in Schultz & Spyridakis, 2004). Moreover, one study revealed that fifth-grade students strongly prefer hypertext that is subdivided by headings (MacGregor & Lou, 2004-2005). Headings work best when they appear with moderate frequency in the text (Schultz and Spyridakis, 2004): headings are most effective when there are approximately 100 words in the text that follows each heading.

Headings should do more than simply provide structure: they should also be written to be informative to the readers. Simple nouns, noun strings or isolated verbs as headings are not informative, but rather vague (Felker et., 1981). Furthermore Swarts, Flower and Hayes (1980, cited in Felker et al., 1981) found that such headings can be misleading. In order for headings to be helpful, plain language literature recommends that they be formulated as questions or verbal phrases rather than nouns or nominalizations, and that headings on the same hierarchical level should be parallel in the text (Redish, n.d.). These recommendations are supported by research in functional literacy. Evetts (2002), for instance, points out that cognitive processing is easier if the language of the question matches the language of the segment where the answer can be found. Thus headings may work better if they are formulated as questions to which readers want to find answers, and if their wording and grammatical structure matches that of the fragment that contains the answer.

What young people say:

Focus group participants commented on the usefulness of headings in signalling the content of different sections of the privacy policies. They noted that headings were more
effective if they were emphasized by bold letters and formulated as questions, with answers provided in the paragraphs below.

Like you could see how the headlines are in bold, like if they had a question like somewhere included in the headlines and like had the answers in the paragraphs below it, it might be a little more helpful (Girl, 13).

It was also easy because it had a question on it "what information do we collect about you" so you just look through that bold written stuff (Girl, 10).

Examples:

Out of ten privacy policies analyzed, eight did not use headings at all, or used a mix of nouns, noun phrases, nominalizations, passive and active verb phrases, such as:

The Information We Collect; How We Use the Information; Collection of Information by Third-Party Sites and Sponsors; Cookies; Security; etc. (neopets.com).

Information Collected; Use of Information; Children's Privacy; Access to Information; Security; etc. (candystand.com).

Only two of the websites examined (addictinggames.com and runescape.com) have informative headings formulated as questions. Although these headings are not fully consistent in terms of verbal voice, some being active and others passive, they are good examples of what a reader might want to find in a privacy policy:

How is my personally identifiable information used by Atom Entertainment?
Who does Atom Entertainment share information with?
When does Atom Entertainment collect my information, including personally identifiable information?
What are my options to control the use of my personally identifiable information?
What about kids' personally identifiable information?
What else should I know about my privacy?” (addictinggames.com)

What personally identifiable information do we collect and store?
What other information is collected and stored?
What happens to the information provided/collected?” (runescape.com)

In addition, runescape.com has the heading “A special note about preteens and users under the age of 18,” which is helpful in locating specific information for this age group, but could have been formulated as a question as well.
Guideline 10: Start paragraphs with topic sentences.

Topic sentences tell the reader what the paragraph is about, thus facilitating the comprehension of main points. They also help readers who scan texts to find accurate information fast. Use clear topic sentences that give readers enough information to know what to expect in the paragraph, but do not overwhelm them with too many details.

What the research says:

A topic sentence is a sentence that states the main idea of a paragraph or a series or paragraphs on the same topic (Kimble, 2002). All the other sentences in the paragraph should relate to the topic sentence, explaining and illustrating it. Beginning paragraphs with topic sentences can help writers organize their material and maintain the unity of paragraphs (D'Angelo, 1986).

Topic sentences are also essential in comprehension. Goldman et al. (1995) maintain that “main idea identification is a fundamental comprehension skill, especially when the purpose of reading is to acquire information” (p. 273). The structure of the text can guide the readers in identifying the main points and the important ideas (Goldman & Rakestraw Jr, 2000), and is particularly important for unfamiliar content (Goldman et al., 1995). There is substantial experimental evidence that the best way to ensure the identification of main ideas is by starting paragraphs with topic sentences. Comprehension is enhanced when topic sentences are placed at the beginning of a paragraph rather than being embedded (Kieras, 1978 cited in Spyridakis & Wenger, 1992; Baumann, 1986, Taylor & Williams, 1983 cited in Goldman & Rakestraw Jr, 2000) or when they are absent leaving the reader to infer the paragraph topic (Lorch & Lorch, 1986). Elementary-age and college-age students had difficulty inferring topic sentences when they were not explicitly stated in the text (Brown & Day, 1983). Part of the explanation for these findings might be that readers give more weight to first sentences in paragraphs and passages, as suggested by longer reading times and by the fact that these initial sentences are re-inspected more frequently (Goldman, 1988, Goldman & Saul, 1990, Meyer, 1975 cited in Goldman & Rakestraw Jr, 2000; Lorch & Lorch, 1986).

Topic sentences are especially important in hypertext, as readers might “follow links in the middle of a paragraph and never get very far past the first sentence” (Spyridakis, 2000, p. 366). Morkes and Nielsen (1997) found that only 3 out of 19 participants read the whole text word by word, without scanning for the main points. Because of this, participants preferred paragraphs written according to the ‘inverted pyramid’ principle, starting with a summary or the main idea. In a follow-up study, Morkes and Nielsen (1998) showed that a website redesigned in order to make it more scannable, more concise and written in an objective rather than promotional style led to 159 percent better performance than the original website, as measured by usability criteria: task time, task errors, memory and subjective satisfaction. The features that they used to make the text more scannable
included tables of contents, headings, large type, bold text, highlighted text, bulleted lists, graphics, captions, and topic sentences.

**What young people say:**

Many focus group participants told us that they rely heavily on topic sentences to structure their reading. They typically scan long documents looking for the main points, and stop to read more carefully the points that arouse their interest.

> Sometimes … I’ll just read the first sentence, cause normally that like outlines what that paragraph’s about (Girl, 14).

> I usually just skim through it … And like take down important points (Girl, 13).

When topic sentences do not describe the content of the paragraph, this is noted as a problem. Participants disliked topic sentences are long and poorly-written, and do not indicate clearly the main ideas of the paragraphs.

> Um, the first sentence of the second paragraph it sort of doesn’t really tell you what it’s going to be in the paragraph (Girl, 15).

**Examples:**

Very few of the sentences beginning the paragraphs of the privacy policies examined give the reader a clear idea of what follows. One example of a potentially confusing topic sentence comes from the privacy policy of neopets.com. Under the heading “Collection of Information by Third Party and Sponsors” the first sentence of the first paragraph reads:

> Our site contains links to other sites, including those of sponsors, advertisers and survey companies, whose information practices may be different from ours (neopets.com).

While this is an important piece of information, this is not the topic of the paragraph and probably not what readers are looking for when skimming for main points. Instead, readers want to know what kinds of information neopets.com shares with other companies and what they can do if they want to opt out. Yet such information is buried at the end of the paragraph in a long and convoluted sentence already quoted in a previous section.

The topic sentences in other privacy policies are hard to identify because of the way paragraphs are laid out. Yahoo.com, for instance, lists long passages of text with bullet points, without blank lines in between, thus making it difficult to distinguish paragraphs from one-another and topic sentences within paragraphs. One paragraph in the privacy policy of Miniclip.com starts with the phrase “Third Party Advertising,” which looks like a heading.
rather than a topic sentence, although the text is not set apart as a heading, but it is rather part of the paragraph.

There are a few examples, however, of topic sentences relatively better written. The first two examples are from the YTV.com policy, from paragraphs about the site’s information sharing practices (1) and information the site records when users send emails (2):

(1) All contest and stored information, including personal information, received from our visitors remains the exclusive property of YTV and is not sold or distributed.

(2) When a user sends an email message to YTV through the website, two pieces of information are automatically stamped on the message (YTV.com).

Another example of good topic sentences comes from the privacy policy of candystand.com:

In some cases, we ask our website users to provide us with some personally-identifiable information (candystand.com).

The paragraph that follows provides a definition of personal information with examples, and is followed by another topic sentence that announces:

Here are the ways we collect personally-identifiable information (candystand.com).

Below this, the policy lists the situations when the site collects personal information, with the text organized in short paragraphs signalled by sub-headings, such as Registration, Contests, sweepstakes and games, Newsletters, etc. All these four topic sentences give the readers a fairly good idea about what the paragraphs are about and some also provide enough information for readers who look for the main points by reading only the first sentences in the paragraphs.

Guideline 11: Use overviews or tables of contents to represent the structure of the text.

Overviews or tables of contents help readers ‘see’ the structure of the text. In an online setting, the headings in the overviews can be hyperlinks: by clicking on them, readers can go directly to the information they are looking for.

What the research says:

Overviews are content-representation tools (Potelle & Rouet, 2003) similar to the table of contents, which can help readers navigate through the text (Salmeron et al, 2005).

What young people say:

Focus group participants would like to see privacy policies that are not only shorter and better structured, but also more interactive. One of the interactive features that they suggested was a table of contents with clickable links:

They could make like a table of contents and then you could like click on what you want to learn (Girl, 14).

Examples:

Out of the ten privacy policies examined, only two have overviews, although none of these are hierarchically-structured. YTV.com’s policy has an overview containing links to the three main sections of the document, but the sub-sections are not signalled. Yahoo.com has probably the most comprehensive privacy policy, in part because of the number and complexity of services they provide. Thus, a click on the privacy policy link takes the reader to a ‘privacy centre,’ with the general privacy policy available in the first window. While this policy itself does not have an overview, another link on the same page takes the reader to a general overview, from which specific details can be accessed about ‘Special topics’ such as data storage and cookies, and ‘Products and Services,’ such as Yahoo! Music. The fact that this overview is not on the first page of the privacy centre, however, and that its link is not highly visible on that page makes it less useful. In conclusion, all ten policies analyzed could benefit from clear or clearer, hierarchically-organized overviews.

3. DESIGN ELEMENTS THAT INFLUENCE COMPREHENSION

Guideline 12: Use 12-13 font size, and typefaces designed for the web or preferred by kids.
People can read better on screen 12 to 14 size fonts and typefaces designed for web, such as Verdana, Georgia and Trebuchet; children prefer Arial and Comic.
What the research says:

For print, the most legible types are sizes 9 to 12 (Tinker, 1965 cited in Felker et al., 1981). Bernard, Chaparro, Mills and Halcomb (2002) examined how hypertext typeface affected the reading performance of elementary school-age children. The authors compared the actual and perceived readability of four types of fonts (the serif fonts Times New Roman and Courier New and the sans serif fonts Arial and Comic Sans MS) at 12 and 14 point sizes. The size of the fonts did not significantly affect reading performance, but children read size 14 fonts faster and perceived them to be more readable. In terms of typeface, Courier led to significantly less effective reading than other faces. The children preferred the sans serif typefaces to the serif ones, the most preferred combinations being 14-point Arial and 12-point Comic. The authors concluded that “it is therefore reasonable to suggest that the optimal typeface for children reading on computer screens is a sans serif typeface with a medium to large x-height, and with a modest amount of letter spacing and character weight” (p. 95).

Surprisingly, however, this study did not test the effects on children’s comprehension of typefaces that have been designed especially for the screen: Verdana, Georgia and Trebuchet (Quinn, 2005; Williams, 2000). According to professional Web designers, these fonts “have become standards for readability on the Web” (Quinn, 2005, no page). Another recommendation coming from experts in graphic design is that when two typefaces are needed, it is better to use one serif and one sans serif rather than two serif or two sans serif fonts (Schriver, 1997).

What young people say:

One of the policies discussed in the focus groups contained 8-point size fonts, while in others the font size was 10 points. Our participants complained that such small letters were very difficult to read, especially when the text was also crammed into long, compact paragraphs.

Maybe change the writing to something bigger. Or something more legible (Girl, 12).

[Use] easy language, bigger, bigger writing, and nothing that you don’t need to know really, and just make it like important, relevant and tell us like everything we need to know (Girl, 17).

Yeah, maybe just, at least, change the font … (Girl, 12).

Yeah make it a bit bolder and larger (Boy, 11).
Examples:

Almost half of the privacy policies analyzed (runescape.com, miniclip.com, addictinggames.com, candystand.com) use fonts that are size 10 or less, and thus quite difficult to read on the screen. The most legible is the policy of YTV.com, which uses Arial 14 fonts, followed by those of newgrounds.com, ebaumsworld.com and neopets.com, which all use relatively large sans serif fonts.

### Guideline 13: Leave enough white space.

Plenty of white space helps readers’ eyes rest and emphasizes important passages in the text.

What the research says:

Experts recommend that electronic text should be even less dense than text on paper: whereas print text can occupy up to 50 percent on the text area (Tinker, 1963 cited in Schriver, 1997), the ideal density for electronic text is between 25 to 30 percent of the screen area (Dodson & Shields, 1978; Tullis, 1988 cited in Schriver, 1997). As in print, lines that are not fully justified, but rather have ragged left margins, are easier to read (Trollip & Sales, 1986 cited in Schriver, 1997). In terms of paragraph breaks, recommendations also differ somewhat from those for print: the best way for breaking paragraphs for electronic text is by using more white space between them rather than through indentation (Schriver, 1997; Williams, 2000).

White space allows readers’ eyes to rest, facilitates the reading flow (Charrow, 1988), and can also be used to inform the readers, as important text can be isolated with white space (Felker et al., 1981). Moreover, lots of white space figured highly among the preferences of five-grade students interviewed about their perceptions of educational websites (MacGregor & Lou, 2004-2005).

What young people say:

While focus group participants did not comment specifically on the use of white space in privacy policies, they pointed out that large blocks of texts should be divided into smaller paragraphs, which would create white space. One participant also mentioned that readers’ eyes might get tired and lose track of the lines if the text is too tightly spaced:

> This is just my opinion, but I would probably double space it, or at least 1.5 because squished together like this, it’s hard on the eyes if it’s on a computer screen, and you get lost, and it looks small (Girl, 12).
Examples:

Although all the policies analyzed have ragged left margins and paragraphs separated by blank lines rather than indented, all could benefit from more white space. In some cases, such as addictinggames.com and candystand.com, while there is white or blank (but coloured) space on the margins, more is needed inside the text to break down large chunks of text. A positive example is the policy for newgrounds.com: it has a plenty of blank space both inside the text and on the margins, although it is black rather than white, because the site uses negative contrast (i.e., white letters on black background).

Guideline 14: Use, but don’t overuse, emphasis techniques. Emphasis techniques, such as colour, indentation, size, shape and boldface, enhance comprehension when not overused.

What the research says:

Text can be visually emphasized through a variety of typographical means: colour, size, indentation, boldface, italics, caps and underlining. Felker and colleagues (1981, 1985) cite studies that have demonstrated that such typographic cues facilitate finding and understanding information: Foster and Coles (1977) found that boldface was more effective than all caps for highlighting; Crouse and Idstein (1972) showed the benefits of underlining; Jenkins and Bailey (1964) of underlining and colour. Glynn and DiVesta (1979, cited in Felker et al., 1985), however, showed that too many highlighting techniques could impede comprehension. Williams and Spyridakis (1992) also found that headings with fewer formatting dimensions were more helpful to readers, and that size was the most powerful visual cue in suggesting the heading’s hierarchical position. On the other hand, however, experts in hypertext argue that changes in the indentation of a heading with respect to the body of the text may be more easily perceived than changes in size, weight or shade intensity (Bertin, 1983, Mullet & Sano, 1995 cited in Schriver, 1997).

Another important feature that can improve legibility especially for the children is the colour contrast between letters and background (Gilutz & Nielsen, 2002). Research on electronic text has shown that the higher the colour contrast, the more readable the text (Hall & Hanna, 2004; Hill & Scharff, 1999 cited in Hall & Hanna, 2004). Chromatic colour combinations are more efficient than black and white (Clarke, 2002 cited in Hall & Hanna, 2004), and in one study, blue and yellow colour combinations led to the best performance and purple and red to the worst (Shieh & Lin, 2000 cited in Hall & Hanna, 2004). In addition, the latter study and others (Wang et al., 2003 cited in Hall & Hanna, 2004) found that comprehension was better for dark text on light background.
What young people say:

The emphasizing technique most commonly mentioned by our focus group participants was the use of bold letters. They noticed that text in bold was effective in attracting their attention to important ideas, in particular when they were scanning the text.

*I would like it if they put the most important sentences in bold so you don’t have to read like the bottom page and then the first and then try to look in the middle for the important stuff (Boy, 11).*

*I'd probably skip through a lot of it. Or just browse, whatever. And then, when something catches my eye I'll read that, and then keep going and keep going, and then if something's in bold, I'll read that, and then keep going (Boy, 13).*

Examples:

In order for heading size to be an efficient emphasizing technique, the size has to suggest the relative importance of that heading. The policy of newgrounds.com, for instance, uses two sizes for headings, but the size is not related to the heading’s hierarchical position. This can confuse the reader, who may think that the text under the smaller-size heading is related to the larger-size heading situated immediately above, which is not necessarily the case. Other policies, however, use various highlighting techniques to differentiate headings and subheadings: all caps versus boldface (candystand.com) or different indentation (yahoo.com). None of the policies overuses emphasizing techniques.

In terms of the contrast between letter and background, addictinggames.com probably has the least legible combination – light grey small fonts on a white background – while candystand.com has one of the most legible ones – dark blue fonts on a light blue background – although the fonts here are also too small. All the other policies use a simple black on white contrast, with the exception of runescape.com and newgrounds.com, which use a negative contrast (white on black).
TESTING THE GUIDELINES

The final step in this project was to assess the effectiveness of the guidelines identified through the literature review and focus groups. The question at hand is whether privacy policies written to conform to these guidelines would indeed lead to better comprehension on the part of children and teens.

1. THE POLICIES FOR TESTING

We created materials to test the guideline effectiveness by starting with the privacy policies of three of the top five websites preferred by Canadian kids and teens (Steeves, 2005): neopets.com, addictinggames.com and newgrounds.com. The first step in preparing the policies was to eliminate references to the actual name of the site. We replaced the real names with fictional names developed for the study: Addicting Games became Gamesco, Neopets became Playclub, and Newgrounds became Games.

The second step was to reduce the length of the policies, since a limited time was available for the experimental test and the length of the original policies tested both the available time and the goodwill of any potential experimental participants. From the policies, we selected only the information addressing five main issues:

- What information the site collects
- What information third parties collect on the site
- What the site does with the information
- What third parties do with the information they collect on the site
- With whom the site shares the information

The rest of the content was eliminated. This selection removed a great deal of the material in the original policies. The original Gamesco policy was 3,362 words, compared to 1497 for the shortened version. The Playclub policy started at 1823 words, with 1219 remaining in the shortened version, and the Games policy started at 790 words, cut down to 565 words in the shortened version.

These changed policies were, of course, not just shorter: the cuts that were made eliminated significant content. While this obviously reduced the efficacy of the text qua privacy policy, it had no influence on the testing of the guidelines: what mattered for our purposes was not whether the policy was complete, but only whether the content presented in the original format was equivalent to that presented in the new format following the developed guidelines. In the remainder of this description, these shortened policies are referred to as the ‘shortened original’ versions, to be compared to ‘revised’ versions that follow the guidelines we are testing.
To create the revised versions, we rewrote these ‘shortened original’ policies according to the comprehension principles identified above. We decided to test the collective impact of all guidelines rather than assessing each individually. The rationale for this approach reflected the reality that many of the guidelines interact and influence one another, and so cannot be implemented in isolation; moreover, in order to create more comprehensible policies, these elements will be implemented together rather than individually.

We rewrote the policies, changing elements of their text, structure and design (see Table 6). At the same time, and critically, we ensured that the content remained consistent in the shortened original and rewritten policies. In particular, this meant that in the rewritten versions we did not provide any clarification of information that was either vague or incomplete in the shortened original versions. The only content addition to the rewritten versions was a list of definitions for unfamiliar words and technical terms, such as ‘third party’ or ‘IP address.’ Because we worked with policies in a paper format, we did not test elements specific to online documents that have been previously shown to improve comprehension, such as overviews that link directly to sections in the documents, roll-over or pop-up windows with definition for difficult words, and different colours for text and background.

Table 6: Changes Implemented in Revised Versions of Policies

<table>
<thead>
<tr>
<th>Textual Changes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provided definitions and examples for unfamiliar words and technical terms</td>
</tr>
<tr>
<td>Shortened sentences and paragraphs</td>
</tr>
<tr>
<td>Used active voice and personal pronouns</td>
</tr>
<tr>
<td>Transformed double-negative or multiple-negative constructions into positive ones</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Structural Changes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arranged information in a logical order by:</td>
</tr>
<tr>
<td>• Using five main sections, each addressing one issue of interest (see Appendix C)</td>
</tr>
<tr>
<td>• Separating information collected directly from the users (by asking them) from information collected about the users (collected automatically)</td>
</tr>
<tr>
<td>• Placing information in order of relevance (e.g. info mandatory for registration before optional info; personal info before computer info)</td>
</tr>
<tr>
<td>Grouped related information together, thus reducing redundancy</td>
</tr>
<tr>
<td>Used clear topic sentences at the beginning of sections/paragraphs</td>
</tr>
<tr>
<td>Arranged information in bullet-point lists and tables</td>
</tr>
<tr>
<td>Placed clear headings and sub-headings at the beginning and within each section</td>
</tr>
<tr>
<td>Formulated headings as questions</td>
</tr>
<tr>
<td>Placed an overview containing the headings at the beginning of the document</td>
</tr>
</tbody>
</table>
Design Changes:

- Increased font sizes from 8-10 to 12 for the text and 14 for the headings
- Formatted headings and sub-headings in bold letters
- Separated sections with white space

The revised versions of the policies were very similar to the shortened original versions in terms of the number of words (for Gamesco.com, 1497 for the shortened original version, 1354 for the revised version, 1219 and 1149 for Playclub.com, and 565 and 566 for Games.com). As a result of extensive use of lists, increased use of whitespace, and a larger font, however, the revised versions were longer in terms of page count: 3 pages for the shortened original versus 5 pages for the revised versions of Gamesco and Playclub, and 2 pages for the shortened original versus 3 pages for the revised version of Games. Parallel sections of the shortened original and revised versions of each of the policies can be seen for comparison in Figs. 1, 2, and 3; the complete shortened original and revised policies are included in Appendix C.
### Figure 1 – Gamesco Policies

<table>
<thead>
<tr>
<th>ORIGINAL VERSION</th>
<th>REWRITTEN VERSION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How is my personally identifiable information used by Gamesco?</strong></td>
<td><strong>1. What information do we collect about you?</strong></td>
</tr>
<tr>
<td><strong>Customized experience.</strong> Gamesco gathers user information to provide you with a customized experience on our sites. Your user information helps us tailor the content, services, goods and advertising to your current and future needs. For this reason, we may ask you to register or to provide personal information when you post high scores, write reviews, download free software, enter a contest, order products, subscribe to a newsletter and/or visit certain areas of a Gamesco site.</td>
<td><strong>We collect the following information from you:</strong></td>
</tr>
<tr>
<td><strong>E-mail.</strong> If you register with Gamesco Sites or purchase products from us, from time to time we may e-mail you with messages about our services or third party products and services we believe may be of interest to you, such as new products, features, services, special offers and updated information. The newsletters may contain codes that enable our database to track your usage of the newsletters, including whether the e-mail was opened and/or what links, if any, were clicked. We will combine this information with other information we have about you and may use that information to improve your site experience and/or provide customized e-mail communications to you. In addition, if you register with a Gamesco site or purchase products, you may automatically receive e-mails confirming your registration and/or purchase and providing you with necessary information relating to the access or use of your registration and/or purchase.</td>
<td><strong>email address, a user name that you select, and other information</strong></td>
</tr>
<tr>
<td><strong>When does Gamesco collect my information, including personally identifiable information?</strong></td>
<td><strong>financial information (for example, credit card number)</strong></td>
</tr>
<tr>
<td><strong>Registration.</strong> When you register, Gamesco asks for your e-mail address, a user selected user name, and other information. Once you are a registered user you can update your profile and may be able to provide additional preferential information (e.g., a member name, a nickname, and certain user preferences).</td>
<td><strong>demographic information (for example, your age, education level or household income)</strong></td>
</tr>
<tr>
<td><strong>Order Forms and Products Store.</strong> Gamesco also uses an order form for users to request information, products and services. For that order form, we collect a user's contact information (e-mail address) and necessary financial information to process the order (i.e. credit card number). Contact information from the order (including email) is used to deliver digital products and information from Gamesco. Gamesco may use third parties to accept and process orders and credit card purchases for merchandise and products, including software.</td>
<td><strong>email addresses of friends you want us to tell about our sites</strong></td>
</tr>
<tr>
<td><strong>Special Contexts or Promotions.</strong> Gamesco may occasionally present a special context or promotion that is sponsored by another company. To qualify for entry in that contest or promotion we may ask you to provide personal information. If we plan to share that information with the sponsor(s) or with others, we will provide a statement to that effect in the contest or promotion terms.</td>
<td><strong>If you want, you may also choose:</strong></td>
</tr>
<tr>
<td><strong>IP Address.</strong> All communication on the internet takes place between pairs of IP Addresses. Our Web servers will log the IP address that any connection is made from. We may use these IP addresses to help diagnose technical problems or prevent abuse of our systems or other site users. Your IP address may also be used to gather aggregate demographic data and target advertisements accordingly.</td>
<td><strong>a member name</strong></td>
</tr>
<tr>
<td><strong>Cookies.</strong> A &quot;cookie&quot; is a small line of text that is stored with your Web browser for record-keeping purposes and to help us provide better service to you. Your browser has options to accept, reject, or provide you with notice when a cookie is sent. We use cookies to save your password (in an encrypted format) on your machine so you don't have to re-enter it each time you visit our site. We also use cookies to deliver content specific to your interests and track your downloads and purchases from the Gamesco Sites.</td>
<td><strong>a nickname</strong></td>
</tr>
<tr>
<td></td>
<td><strong>certain user preferences</strong></td>
</tr>
<tr>
<td></td>
<td><strong>We collect this information when you:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>visit our websites</strong></td>
</tr>
<tr>
<td></td>
<td><strong>register with us</strong></td>
</tr>
<tr>
<td></td>
<td><strong>post high scores</strong></td>
</tr>
<tr>
<td></td>
<td><strong>write reviews</strong></td>
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<tr>
<td></td>
<td><strong>download free software</strong></td>
</tr>
<tr>
<td></td>
<td><strong>enter a contest or promotion</strong></td>
</tr>
<tr>
<td></td>
<td><strong>subscribe to our newsletter</strong></td>
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<tr>
<td></td>
<td><strong>receive our newsletter</strong></td>
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<tr>
<td></td>
<td><strong>fill out one of our forms, for example when you:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>order products and services from our sites</strong></td>
</tr>
<tr>
<td></td>
<td><strong>request information from us</strong></td>
</tr>
<tr>
<td></td>
<td><strong>We also collect information about:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>your computer, including your IP address</strong></td>
</tr>
<tr>
<td></td>
<td><strong>the pages that you visit on our sites</strong></td>
</tr>
<tr>
<td></td>
<td><strong>the ads that you see</strong></td>
</tr>
<tr>
<td></td>
<td><strong>what you buy and download from our sites</strong></td>
</tr>
<tr>
<td></td>
<td><strong>whether you opened our newsletter</strong></td>
</tr>
<tr>
<td></td>
<td><strong>whether or not you clicked any of the links inside the newsletter</strong></td>
</tr>
<tr>
<td></td>
<td><strong>We collect this information:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>in weblogs</strong></td>
</tr>
<tr>
<td></td>
<td><strong>by saving cookies on your computer</strong></td>
</tr>
<tr>
<td></td>
<td><strong>by including a special computer program in our newsletter</strong></td>
</tr>
</tbody>
</table>
### II. How We Use the Information

We use visitors’ personal information for our internal purposes of enabling visitors to enter one of our online contests or sweepstakes, to subscribe to our online newsletter, or to inform users of upcoming events and special announcements. We use the e-mail addresses of parents to notify them when we have received information from their children and to give them the opportunity to have their child’s name removed from our lists. We do not keep any personal information we obtain through a contest or sweepstakes after the particular event is completed. We use the names and e-mail addresses of subscribers to our e-mail newsletter only to send them the newsletter. Each newsletter contains instructions on how to be removed from the subscription list by sending us a return e-mail. We also use visitor’s personal information to locate and find new users following the site’s Terms and Conditions. Sometimes we will use agents or contractors to help us provide services to our visitors, such as helping us conduct a sweepstakes and sending prizes to the winners. In these cases, we require the agent or contractor to keep the information confidential and to use it only for the specific services they are performing. In addition, please review the section on Collection of Information by Third-Party Sites and Sponsors for a description of the limited instances whereby personal information collected on the site may be supplied to third parties with the consent of the user.

We sometimes use the non-personally identifiable information that we collect to improve the design and content of our site or to personalize our visitors’ experience on Playclub.com, and to offer products, programs, and services. We also may use this information in the aggregate to analyze site usage, as well as to offer products, programs, or services.

We will disclose information we maintain when required to do so by law, for example, in response to a court order or a subpoena. We also may disclose such information in response to a law enforcement agency’s or other public agency’s (including schools or children’s services) request or if we feel that such disclosures may prevent the instigation of a crime.

We will not use or transfer personally identifiable information in ways that are materially different from the ones described above without also providing parental notification of such practices and obtaining consent for any materially different uses.

### 3. How do we use your information?

We use the information we collect about you to:

<table>
<thead>
<tr>
<th>If You Are 12 or Younger</th>
<th>If You Are 13 or Older</th>
</tr>
</thead>
<tbody>
<tr>
<td>• send you one message to activate your account (after that we delete your email address from our system)</td>
<td>• let you enter a contest or sweepstakes (after the contest or sweepstakes, we delete that information from our system)</td>
</tr>
<tr>
<td>• tell your parent that you want to enter a contest, and give them the opportunity to delete your name from the list</td>
<td>• let you subscribe to our online newsletter</td>
</tr>
<tr>
<td>• pick your name and e-mail on a contest list when you enter a contest, if your parent doesn’t tell us to delete them</td>
<td>• tell you about upcoming events and special announcements</td>
</tr>
<tr>
<td>• let you know if you win a contest</td>
<td>• let you know if you win a contest</td>
</tr>
<tr>
<td>• send you a prize you won</td>
<td>• analyze how our visitors as a group use our website (for instance, to know what percent of our registered users are female)</td>
</tr>
<tr>
<td>• analyze how our visitors as a group use our website (for instance, to know what percent of our registered users are female)</td>
<td>• decide what content to display and which products, programs and services to advertise to you when you visit our site</td>
</tr>
<tr>
<td>• decide what content to display and which products, programs and services to advertise to you when you visit our site</td>
<td>• see how many visitors we have and how often they visit various sections of our site</td>
</tr>
<tr>
<td>• see how many visitors we have and how often they visit various sections of our site</td>
<td>• ensure you are following our site’s rules</td>
</tr>
<tr>
<td>• ensure you are following our site’s rules</td>
<td>• improve the design and content of our site</td>
</tr>
<tr>
<td>• improve the design and content of our site</td>
<td>• store your preferences</td>
</tr>
<tr>
<td>• store your preferences</td>
<td></td>
</tr>
</tbody>
</table>

If we plan to use your information in any way other than those described above, we will first ask your permission. We will also ask your parents’ permission if you are 12 or younger.
<table>
<thead>
<tr>
<th>ORIGINAL VERSION</th>
<th>REWRITTEN VERSION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Privacy Statement for Games.com</strong></td>
<td><strong>PRIVACY STATEMENT FOR GAMES.COM</strong></td>
</tr>
<tr>
<td>Games.com has created this privacy statement in order to demonstrate our firm commitment to privacy. The following discloses the information gathering and dissemination practices for this Web site: Games.com.</td>
<td>For the words marked with *, there are DEFINITIONS at the end of this statement.</td>
</tr>
<tr>
<td><strong>Information Automatically Logged</strong></td>
<td>This privacy statement explains what information we collect about you and what we do with it. Click on the links below to find out more:</td>
</tr>
<tr>
<td>We use your IP address to help diagnose problems with our server and to administer our Web site. Your IP address is also used to help identify you for on-line voting.</td>
<td>1. What information do we collect about you?</td>
</tr>
<tr>
<td><strong>Cookies</strong></td>
<td>2. What information do third parties* collect about you when you visit our site?</td>
</tr>
<tr>
<td>Our site uses cookies for the purpose of accumulating Site Gold. For each unique area you visit, you receive one gold unit. This information is not used for marketing purposes.</td>
<td>3. How do we use your information?</td>
</tr>
<tr>
<td><strong>Advertisers</strong></td>
<td>4. How do third parties* use the information they collect about you when you visit our site?</td>
</tr>
<tr>
<td>We use an outside ad company to display ads on our site. These ads may contain cookies. While we use cookies in other parts of our Web site, cookies received with banner ads are collected by our ad company, and we do not have access to this information.</td>
<td>5. Who do we share your information with?</td>
</tr>
<tr>
<td><strong>Third Party Advertising</strong></td>
<td><strong>1. What information do we collect about you?</strong></td>
</tr>
<tr>
<td>Some ads appearing on this website are delivered to you by Advo2, our Web advertising partner. Information about your visit to this site, such as number of times you have viewed an ad (but not your name, address, or other personal information), is used to serve ads to you on this site. For more information about Company 1, cookies, and how to &quot;opt-out&quot;, please click here.</td>
<td>We collect the following information from you:</td>
</tr>
<tr>
<td>We use Advo2, Advo3, and other third-party advertising companies to serve ads when you visit our Web site. These companies may use information (not including your name, address, email address or telephone number) about your visits to this and other Web sites in order to provide advertisements on this site and other sites about goods and services that may be of interest to you. If you would like more information about this practice and to know your choices about not having this information used by these companies, please click here.</td>
<td>• contact information (for example, your name and email address)</td>
</tr>
<tr>
<td><strong>Third Party Cookies</strong></td>
<td>• demographic and profile information (for example, your zip code or age)</td>
</tr>
<tr>
<td>In the course of serving advertisements to this site, our third-party ad server, Advo2, Advo3, or their affiliates, or individual advertisers may place or recognize a unique &quot;cookie&quot; on your browser.</td>
<td><em><em>2. What information do third parties</em> collect about you when you visit our site?</em>*</td>
</tr>
<tr>
<td><strong>Registration Forms</strong></td>
<td>Third party* advertising companies collect information about:</td>
</tr>
<tr>
<td>Our site's registration form requires users to give us contact information (like their name, email address), unique identifiers (like their email address), and demographic information (like their zip code or age).</td>
<td>• your visit to our site</td>
</tr>
<tr>
<td>Contact information from the registration forms is used to get in touch with the customer when necessary.</td>
<td>• the number of times you have viewed an ad</td>
</tr>
<tr>
<td>Unique identifiers (such as email address) are collected from Web site visitors to verify the user's identity, and for use as account numbers in our record system.</td>
<td>• other information</td>
</tr>
<tr>
<td>Demographic and profile data is also collected at our site. This information is shared with advertisers on an aggregate basis.</td>
<td>Third party* advertising companies do not collect your name, address, email address, telephone number, or other personal information.</td>
</tr>
</tbody>
</table>
2. DATA COLLECTION

To test the impact of the guidelines on the comprehensibility of privacy policies, we used two primary measures: a comprehension test and an information location task.

For the comprehension test, we developed a questionnaire for each of the three policies, with a different number of questions depending on the complexity of the document: 8 questions for Playclub, 9 for Gamesco and 6 for Games (see Appendix D). These questionnaires tested knowledge on various aspects of each policy, and each questionnaire included a multiple-choice question in which participants were asked to identify the types of information that, according to the privacy policy, were collected by the site. Two open-ended questions were asked regarding each policy: participants were asked to identify things that should have been explained in the policy but were not; they were also asked to identify aspects of the policy that were unclear or confusing. For the final question, respondents were shown both versions of the policy for a particular site (i.e., both the shortened original and the revised policy developed from it), and asked to identify which they would prefer to read.

In the information location task, participants were asked to identify the information within each policy that answered each of the following questions:

- What information does the site collect about you?
- What does the site do with the information they collect about you?
- Who does the site share your information with?

They performed this task by highlighting the relevant information, using a different colour for each question.

In order to assess the impact of comprehension guidelines on the policies with kids and teens, we invited 35 participants, aged 11 to 17, to our experimental sessions. Each participant was given two policies: one original version and a second (different website) revised version. They completed all tasks described below for one policy and then moved on to the second. As a first step, participants were given 3 minutes to read the policy. After reading the policy they completed the highlighting task. They were given 1 minute to highlight the relevant information for each of the three questions. They then completed comprehension questionnaire, and were given an amount of time dependent on the number of questions: 10 minutes for Gamesco, 9 minutes for Playclub, and 7 minutes for Games. Finally, we gave participants both versions (shortened original and revised) of the policy and we asked them to choose which of the two versions they would rather read and to tell us why.
3. RESULTS: REVISED POLICIES ARE BETTER

The results of the experimental testing are unequivocal: the revised policies are easier to understand and are preferred by our participants.

We compared the comprehension scores for the 'shortened original' policies with those for the 'revised' versions: participants using the revised version were better able to identify the information that (according to the policy) is collected by the site, and they performed better on the overall comprehension test. The results of the highlighting task give some evidence why this is the case. Figure 4 shows sample results from the highlighting task (additional examples of these data are provided in Appendix E). As this figure makes evident, relevant information is scattered through the policy in the shortened original version. In contrast, in the revised policies information about specific issues (e.g., what information is collected) is concentrated in a single area of the policy. Our participants were more successful in identifying the relevant information for each question in the revised, as opposed to shortened original, policies.

Finally, the participants overwhelmingly preferred the rewritten version, pointing out that they had a better structure, related information grouped together, bullet-point lists, short paragraphs and clear headings, definitions for difficult words/technical terms, and that they generally looked friendlier, "easy on the eye," and "less intimidating."
Figure 4 – Examples of Highlighted Policies

Games, Revised
Green: Information Collection
Pink: Information Use
Orange: Information Sharing

Games, Shortened Original
Green: Information Collection
Pink: Information Use
Orange: Information Sharing

Privacy Statement for Games.com

Information Collection

Information Use

Information Sharing
SUMMARY AND DISCUSSION

We have identified a set of principles for writing and designing online documents that can lead to better comprehension. The examples taken from existing privacy policies demonstrate in fact that some ways of writing, structuring and presenting information are more useful than others in terms of facilitating reading and understanding. The same content can be conveyed in ways that can help or hinder comprehension, especially for younger readers who are unfamiliar with this content and probably not very interested in it. Furthermore, poor writing and design not only hinder comprehension, but also discourage people from even attempting to read privacy policies: the length and legalistic verbiage of privacy policies are among the main reasons people give for not reading them (Culnan & Milne, 2001), and users are more likely to read those policies that are perceived to be more comprehensible (Milne & Culnan, 2004).

From the perspective of privacy policy writers, the argument can and has been made that privacy policies that are written to comply with legal requirements have difficulty fulfilling at the same time functions of compliance and information (Culnan, n.d.). Because of the legal requirements, writers are compelled to use legal language and established terms of art, which are unfamiliar to the average reader (Culnan, n.d.). This point has been raised in particular with respect to privacy notices for health and financial information: the effort to comply with the Health Insurance Portability and Accountability Act (HIPPA) and the Gramm-Leach-Bliley Act has resulted in privacy policies that are very difficult to understand (Hochhauser, 2003b). Anton et al (2004) in fact compared health information privacy policies before and after the introduction of HIPPA, and found that the later were more difficult to read than the former ones.

The counterargument to this point, however, can be found in the plain language literature, which argues that legal language itself does not have to be obscure, but can be simpler and easier to understand (Benson, 1984-1985; Kimble, 1995-1995, 1996-1997; Mazur, 2000). Kimble (1995-1995, 1996-1997), for instance, points out that just a small proportion of the complicated legalese language consists in fact of genuine terms of art, while the majority can be replaced by simpler and more frequently used words and constructions. Such simpler, plainer language would in fact uncover “ambiguities and errors that traditional style, with its excesses, tends to hide” (Kimble, 1996-1997, p.2).

Thus, the argument that only established yet complex vocabulary and syntactic structures can ensure precision in documents that fulfil legal requirements – which is one of the strongest arguments in favour of legalese – is largely a myth according to proponents of plain language (Benson, 1984-1985; Kimble, 1998-2000, 2006). Moreover, these proponents ask, even if legalese were inherently more precise than plain language, what could be the purpose of such “unintelligible precision” (Benson, 1984-1985, p. 560)? Precision and clarity, Kimble (1994-1995) argues, should not be mutually exclusive, but
rather complementary goals. If only a few can accurately interpret a document written in such language, yet the document fails to communicate to the many that need to understand it, such precision is useless and beside the point, and can only benefit those who perpetuate this language (Benson, 1984-1985).

By failing to accurately communicate to their readers, the authors of privacy policies expose themselves to suspicions of having written and posted these documents solely for compliance purposes and to avoid liability:

… companies are concerned about liability, and will often assign the drafting of the [privacy] notice to their legal department. In an effort to create a comprehensive statement of information practices that avoids liability with the FTC or other regulatory agencies, attorneys often draft notices that resemble a legal document. While comprehensive, the statements are so lengthy and full of legal language that they arguably do little to assist the average consumer in understanding a company’s privacy practices (Culnan, n.d., p. 14)

Furthermore:

… corporate counsel may anticipate the perception that a posted privacy policy is an offer of a contractual relationship with the consumer. If the policy functions in this manner, counsel is more likely to craft a policy that anticipates any possible eventualities of an ongoing relationship governed by contract. As a result, the notice may be drafted with potential contract litigation in mind, employing language that is vague and open ended, and that does not clearly delineate reliable information practices (Culnan, n.d., p. 14).

In an analysis drawing on critical linguistics, Pollach (2005) found that the privacy policies of 28 commercial websites use communicative strategies of “mitigation and enhancement, obfuscation of reality, relationship building” and “persuasive appeals” (p. 231). At the textual level, such strategies are realized through lexical and syntactical elements such as those identified as practices to be avoided in this report. For instance, the passive voice and nominalizations can obscure the agent of important verbs and thus the responsibility for important actions; legalese terms and double negatives not only confuse readers, but also reduce the authors’ commitment to what is said.

Other elements that Pollach (2005) notices are not discussed here but are present in the privacy policies that we analyzed. For instance, persuasive techniques such as minimization have the effect of making some potentially negative practices seem less important. As a case in point, the insistence that cookies are “small files” and that placing them in users’ computers is common practice, making these files seem unimportant. Phrases such as “Cookie technology is used on our Site to maximize the Site experience” (ytv.com), or “eBaum’s World has created this privacy statement in order to demonstrate
our firm commitment to privacy” (ebaumsworld.com) -- a stock phrase used identically by other websites as well -- rather than communicating in a straightforward manner the specific ways in which companies collect and use data, serve as self-promotional, trust-building tools. Thus, Pollach (2005) concludes, companies benefit from privacy policies that use these communicative strategies, because these policies allow them to collect data to which they would not have access if readers were fully informed about data handling practices.

We are not arguing that privacy policies are purposely drafted to mislead readers and to obscure questionable information practices. In fact, the creation of dense and incomprehensible privacy policies is most likely not the deliberate goal of those writing the policies, but rather the result of poor writing and communication practice. Whatever the cause, however, the consequences for readers are the same: the choices that authors of privacy policies make can mislead readers, making informed consent effectively impossible (Pollach, 2005). And information practices conducted on the basis of policies that preclude informed consent are unethical (Hochhauser, 2003b; Pollach, 2005). Thus, in order for privacy policies to perform not only compliance but also information functions, so that Internet users can release their personal data based on truly informed consent, these documents have to be accurate, transparent and unambiguous, and our research suggests ways in which these objectives can be reached.

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11 Research had shown that people dislike the use of a promotional tone. Morkes and Nielsen (1998) redesigned a website to be more scannable, more concise and written in an objective rather than promotional style. This led to 159 percent better performance than the original website, as measured by usability criteria: task time, task errors, memory and subjective satisfaction.
1. **LIST OF GUIDELINES**

Table 7 – Textual Guidelines

<table>
<thead>
<tr>
<th>Guideline</th>
<th>Principle</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Guideline 1: Choose the simplest words possible.</strong></td>
<td>Familiar words are understood better and faster than unfamiliar words, and comprehensible text should use these simpler words, for example ‘total’ rather than ‘aggregate.’ When a complicated or uncommon word is required, provide a definition for the reader.</td>
</tr>
<tr>
<td><strong>Guideline 2: Avoid double negatives.</strong></td>
<td>Sentences that include two negative terms (e.g., not, unless, never, nothing) actually express a positive: saying &quot;We are not going to reveal your information unless the police asks us to do so&quot;, actually means “We are going to reveal your information if the police ask us to do so”. These sentences are more easily understood in their positive form.</td>
</tr>
<tr>
<td><strong>Guideline 3: Use language that makes clear who is doing what to whom.</strong></td>
<td>Passive verbs and nominalizations tend to make it unclear who is doing what to whom. The fact that third parties use information is more clearly evident in the active construction of “third parties use your information” than in the corresponding passive sentence of “your information is used by third parties”. Nominalizations turn verbs into nouns, obscuring action and adding words in the process: thus, instead of the simpler and active verb ‘decide’, a nominal form would be ‘make a decision’.</td>
</tr>
<tr>
<td><strong>Guideline 4: Keep sentences simple and paragraphs short.</strong></td>
<td>People prefer and comprehend better simple sentences and short paragraphs. Long sentences with many subordinate clause, and large blocks of text contain too much information and are intimidating for young readers. Rather than “We will share your personally identifiable information, such as your name and birth date, with third parties, including companies that perform services for us, which have their own privacy policies” write “We will share with third parties your personally identifiable information, such as companies that perform services for us. They have their own privacy policies.”</td>
</tr>
</tbody>
</table>
Guideline 5: Put the main idea of the sentence at the beginning.

Sentences are easier to understand when the main idea occurs at the beginning, and when the primary verb and object are not split by additional information. Use “We share your e-mail address with your permission” rather than “With your permission, we share your email address” or “We share, with your permission, your email address”.

Guideline 6: Place parallel information in lists.

When multiple items - situations, conditions, rules, consequence, etc. - are placed in lists, people read them more easily and find faster the information they need. Use lists with bullet-points or numbers for sentences that contain parallel items, for example “We collect personal information such as your name, email address, and birth date, computer information, such as IP address and operating system, and information about your visits to the site.”

Table 8 – Structural Guidelines

<table>
<thead>
<tr>
<th>Guideline</th>
<th>Principle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guideline 7: Arrange information in a logical order.</td>
<td>Information arranged in a logical order is processed more easily. Many logical orders can be used, including: old information before new, important before less important, and general before specific.</td>
</tr>
<tr>
<td>Guideline 8: Group related information together and eliminate redundancies.</td>
<td>Related information should appear together in the text, in clearly signalled sections, and repetitions should be eliminated.</td>
</tr>
<tr>
<td>Guideline 9: Provide informative headings.</td>
<td>Informative headings can help locating and understanding content. Headings are useful if they provide clear cues about the kind of information that follows, the organization of the document as a whole, and the location of particular content. In a privacy policy, informative headings might be “What personal information do we collect?”, and “How do we use your personal information?”</td>
</tr>
</tbody>
</table>
Guideline 10: Start paragraphs with topic sentences.
Topic sentences tell the reader what the paragraph is about, thus facilitating the comprehension of main points. They also help readers who scan texts to find accurate information fast. Use clear topic sentences that give readers enough information to know what to expect in the paragraph, but do not overwhelm them with too many details.

Guideline 11: Use overviews or tables of contents to represent the structure the text.
Overviews or tables of contents help readers ‘see’ the structure of the text. In an online setting, the headings in the overviews can be hyperlinks: by clicking on them, readers can go directly to the information they look for.

Table 9 – Design Guidelines

<table>
<thead>
<tr>
<th>Guideline</th>
<th>Principle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guideline 12: Use 12-14 font size, and typefaces designed for web or preferred by kids.</td>
<td>People can read better on screen 12 to 14 size fonts and typefaces designed for web, such as Verdana, Georgia and Trebuchet; children prefer Arial and Comic.</td>
</tr>
<tr>
<td>Guideline 13: Leave enough white space.</td>
<td>Plenty of white space helps readers’ eyes rest and emphasizes important passages in the text.</td>
</tr>
<tr>
<td>Guideline 14: Use, but don’t overuse, emphasis techniques.</td>
<td>Emphasis techniques, such as colour, indentation, size, shape and boldface, enhance comprehensions when not overused.</td>
</tr>
</tbody>
</table>
CONCLUSION

We introduced this report with a discussion of the attitude of young Canadians regarding the protection of their personal information. Our focus group participants universally expressed a sense of resignation and cynicism when it comes to the release of personal information. They simply don’t expect to make choices about online privacy, because they don’t think there are choices to be made: “on the Internet, the doors are broken”.

There are, of course, many reasons for this attitude, including a realistic understanding of the commerce of the Internet:

… you can’t really expect that they’re going to let you use their Internet and not expect to get something back from it (Girl, 16).

Young Canadians are resigned to the notion that they must ‘pay to play’, and the currency is personal information. The choice they see in front of them is simple: give marketers what they want, or don’t play the game.

Their choice, however, is hardly informed. The policies that outline details of the collection and use of personal information are rarely if ever read. Young people are well aware that these policies, ostensibly written to inform, are long, intimidating, and virtually impossible to understand. Why read a policy that makes no sense to you? Instead, just click ‘yes’ and get on with your life.

There is, however, good reason to understand the content of these policies. In our focus groups, participants were encouraged to actually read privacy policies, and the discussion that ensued helped them to clarify difficult language and vague concepts. In the context of these interactions, a remarkable thing happened: the young people who expressed so much resignation and cynicism about their online privacy began to ask questions about privacy, about privacy practices, and about privacy-related choices. Some expressed surprise and even outrage at the information-collecting practices of the web sites they use:

I looked at ‘we collect information also about, like, your computer and stuff’ and that kind of surprised me because I’m playing on your site, you know. And you collect information about my computer. It’s a little surprising (Girl, 13).

Others asked questions about the what, how, and why of personal information collection, and they started to think about information sharing, noting how far the information they provided to one web site could travel:

Like if they ask you to fill out a whole page of, like, stuff, it’s like, why do you need all this information? Just to register? I think that. Like, if they’re asking me for my
postal code it's like why do you need my postal code just so I can go on your website? And just, like, play a game? (Boy, 14).

When they spent time thinking about the policies themselves, the young people who participated in this research noted what was missing from the policies they were reading, what was implicit, and what was (perhaps deliberately) vague.

Also, it says, 'we collect user contact information and necessary financial information to process the order' and it says 'i.e. credit card number' but what else are they collecting? It just, it doesn't say. It gives you an example but other than that it doesn't tell you everything that's collected (Girl, 14).

This much seems clear: when young people read and understand the policies that govern the collection and use of their personal information, they move from resigned acceptance of those practices toward an engaged and critical analysis.

Such an engaged and critical analysis is at the very core of informed choice. Knowing what information is collected, how it is used, and with whom it is shared, young people might still decide to offer their personal information for access to the games and social networking sites they want, but their decision will be informed. Comprehensible privacy policies are obviously key to this process, for these are the documents that can and should tell users what they need to know about information collection and use. The guidelines developed in this research, when followed, will result in privacy policies that better achieve the critical goal of informing readers about information practices.

We are not so naïve as to assume that changing the format of privacy policies will address all the problems related to the collection and use of personal information. We do know, however, that when young people understand the privacy policies they read, they ask questions about information practices. They move away from a position of resignation, and reclaim in the process some of their own agency in negotiating their online privacy. Of course, it will take a lot more to fix the ‘broken doors’ of privacy protection on the Internet -- and creating comprehensible privacy policies is one important step in the right direction.
WORKS CITED


CIPPIC. (2006). *Compliance with Canadian data protection laws: Are retailers measuring up?* [http://idtrail.org/content/blogcategory/20/71/](http://idtrail.org/content/blogcategory/20/71/).


Zakaluk, B.L. and S.J. Samuels (eds.). *Readability: Its past, present and future.* Newark: International Reading Association, pp. 77-95.


APPENDIX A: FOCUS GROUP METHODOLOGY

1. PARTICIPANTS AND LOCATIONS

The focus group participants were 54 children and teens, aged 11 to 17, from Ottawa and London, Ontario, who use the Internet and were given parental consent to participate. There were 31 girls and 23 boys; in terms of age, 23 were in the 11 to 13 age group, and 31 were in the 14 to 17 age group. Participants were selected through a snow-ball sampling method: after a first group of participants responded to our public announcements, they recommended other potential participants and put us in contact with them. We invited the participants to the University of Ottawa and the University of Western Ontario, respectively, in several groups ranging from 6 to 13 people. In total, there were 3 focus groups with participants between the ages of 11 and 13, and 4 focus groups with participants between 14 and 17.

2. PROCEDURE

As shown in the discussion guide included below, each focus group had three main parts. The first one was a conversation about their activities on the Internet in general and about privacy policies. In the second part, participants were given screen shots of excerpts from privacy policies from three of the websites preferred by Canadian kids and teens (Steeves, 2005). Participants in the 11-13 age group discussed fragments from the policy of neopets.com, while those in the 14-17 age group discussed fragments from the policies of doyoulookgood.com and addictinggames.com (see the screen shots below). Finally, the third part of the focus groups was a discussion about participants’ general privacy-related attitudes, expectations and behaviours on the Internet, starting from specific examples of monitoring and data collection practices. The discussions were recorded and later transcribed for analysis. Participant’s names were removed from all the transcripts.

3. DISCUSSION GUIDE

I. GENERAL CONVERSATION

What do they do online in general

1. What kinds of things do you do online?
2. Do you ever think about your privacy when you’re online? OR Do you think about the fact that other people can know who you are, where you are and what you do online?
3. What information do you think websites collect about you when you’re online?
4. Do you ever get asked to provide a site with information about yourself?
5. What do you think they do with the information? OR If a site did ask for information, what do you think they’d do with it?

Privacy policies

6. What is a privacy policy? What do you think privacy policies tell us? What should companies/ websites tell us in a privacy policy?
7. Do you read the privacy policies of the websites that you visit?
8. How often do you read the privacy policies of the sites that you visit?
9. Why do you read the policies?
10. Why don’t you read them?
11. If a site has a privacy policy, do you think they collect any personal information? [Personal information means “Information about you as a person”, for example your name, your date of birth, your address or telephone number, etc.]

How they read policies

[if they don’t, these questions can be about ‘long’ online documents in general]
12. Do you read privacy policies from beginning to end or do you scan them?
13. Is there something in particular you want to find out from a policy? How do you find that out? What kinds of things in the policy help you do that?
14. If you read a policy and it has a hyperlink in it, would you click on it? Why or why not? Would you go back to the privacy policy if the link takes you to a different page? How would you go back?
15. After you open a linked page, what do you think is the easiest way to go back to the policy page?
   ➢ Hit the ‘back’ button
   ➢ Just close the linked page and find the privacy policy page underneath
   ➢ Have the linked page open up as a pop-up window, so that you can still see the privacy policy page all the time.

II. READ AND DISCUSS PASSAGES FROM PRIVACY POLICIES

16. Did you understand this excerpt?
17. Do you think this excerpt does a good job at explaining:
   a) What information they collect and from whom?
   b) What they do with the info?
IF NO:
18. What was hardest to understand? Can you give us some specific examples of words, or phrases or sentences?
19. What made it hard to understand this excerpt?
20. What was easiest to understand? Can you give us some specific examples of words, or phrases or sentences?
21. What made it easy to understand this excerpt?

IF YES:
22. Point to a part THEY SAY THEY UNDERSTOOD: What do you think this means?
23. Were there any difficult parts? If THEY POINT TO A SPECIFIC PART: What do you think this means?
24. Point to parts WE THINK ARE INCOMPREHENSIBLE: What do you think this means?
25. What did you like in this excerpt?
26. What did you not like in this excerpt?

III. ATTITUDES ABOUT PRIVACY IN GENERAL

27. What bugged you about what websites do with information about you?
28. Discuss their privacy-related attitudes and expectations, starting from specific examples:
   - Schools and parents accessing MSN logs
   - MSN owning the content of their conversations
   - Sites keeping track of their activities
   - Companies using their info for market research and to target ads at them
   - Click-stream data, web beacons
4. **Screen Shots of Privacy Policy Excerpts**

**Figure 5 – Age group 11-13**

1. **The Information We Collect**

   At Noggin.com, the only personally identifiable information we collect from users 12 years old and younger is a valid e-mail address. And, we only use this information to send those users one message to activate their Noggin account, and then the e-mail address is completely removed from our system. We also use the 12 years old and under for certain non-personally identifiable information, such as birth dates, gender, state/province, zip/postal code, and country.

   Noggin requests users 13 years and older to provide a first and last name, valid e-mail address, birth date, gender, and postal code. Although they have the option to voluntarily enter additional information (such as home address, state and country), it’s not a requirement to utilize their account. For some of our online activities such as polls or surveys, we may ask users to provide additional information that is not personally identifiable, such as city or state of residence or a visitor’s favorite cartoon character.

   Users can also change their user information supplied upon registration (except for user name, original e-mail address and date of birth) on this page:

   [http://www.noggin.com/userinfo.html](http://www.noggin.com/userinfo.html) and following the directions on such page.

   When a child under 13 enters a contest, we will ask for a parent’s e-mail address so that we can notify this parent that we have received personal information from the child. We do not knowingly collect names and e-mail addresses from children under 13 without notifying the parent’s e-mail and giving the opportunity to remove their child’s name from the list of winners. Winners of our contests or sweepstakes are notified by e-mail, and are required to send us by fax or regular mail a form containing their street address. Winners who are minors must have the form signed by a parent in order to receive their prizes.

   Additionally, when visitors come to our site, we automatically collect non-personally identifiable “cookie” information, such as the type of computer operating system (e.g., Windows 95 or Mac OS), the user’s IP address, the web browser (e.g., Netscape, Internet Explorer) being used, and information regarding the Internet service provider.

2. **How We Use the Information**

   We use visitors’ personal information for our internal purposes of enabling visitors to enter one of our on-line contests or sweepstakes, to subscribe to our online newsletter, or to inform users of upcoming events and special announcements. We use the e-mail addresses of parents to notify them when we have received information from their children and to give them the opportunity to have their child’s name removed from our list. We do not keep any personal information we obtain through a contest or sweepstakes after the particular contest is completed. We use the names and e-mail addresses of subscribers to our e-mail newsletter only to send them the newsletter. Each newsletter contains instructions on how to be removed from this subscription list by sending us a return e-mail. We also use visitors’ personal information to track usage and to ensure users are following the site’s Terms and Conditions. Sometimes we will use agents or contractors to help us provide services to our visitors, such as helping us conduct a sweepstakes and sending prizes to the winners. In those cases, we require the agent or contractor to keep the information confidential and to use it only for the specific services they are performing. In addition, please review the section on Collection of Information by Third-Party Sites and Vendors for a description of the limited instance wherein personal information collected on our site may be supplied to third parties with the consent of the user.

   We generally use the non-personally identifiable information that we collect to improve the design and content of our site, to personalize our “visitors” experience on Noggin.com, and to offer products, programs, and services. We also may use this information in the aggregate to analyze usage, as well as to offer products, programs, or services.

   We will disclose information we maintain when required to do so by law, for example, in response to a court order or a subpoena. We also may disclose such information in response to a law enforcement agency or other public agency (including schools or children’s service) request or if we feel that such disclosure may prevent the violation of a crime.

   We will not use or transfer personally identifiable information in ways that are materially different from the ways described above without also providing additional notification of such practices and obtaining consent for any materially different use.
III. Collection of Information by Third-Party Sponsors and Sponsors

Our site contains links to other sites, including those of sponsors, advertisers and survey companies, where information practices may be different from ours. Sometimes the other sites might conduct contests or sweepstakes that are promoted on Neopets.com. Visitors should consult the other sites’ privacy notices, since those sites are not covered by our privacy policy and may follow procedures that are different from ours. Neopets never gives a user’s e-mail address or other registration information to such third parties without permission; however, if you choose to “opt-in” (click on a box to receive a third party’s information), to register with one of our sponsors, or not to “opt-out” (undock a checked box that will provide a sponsor with your information), that means you have allowed Neopets to give your registration information and other collected information, including e-mail address, to that third party.

Additionally, sometimes third parties use cookies, text files, or similar technologies (see “IV. Cookies” below) to collect user preferences for various purposes. The use of these technologies by such third parties is subject to their own privacy policies, not ours. Visitors who do not wish their activities to be subject to this data collection should consult the websites of these third parties for their procedures for opting out of cookie placement.

IV. Cookies

Neopets.com uses a software technology called “cookies.” Cookies are small text files that we and certain third parties place in your browser to store their preferences. Cookies themselves do not contain any personally identifiable information although cookies could enable us to make a visitor’s use of this Web site to personal information that a visitor has provided, such as an e-mail address, we do not use them for this purpose. We use cookies to determine how many visitors we have and how often they visit various sections of our site.

We employ FTP codes and so-called PIP privacy policies only as technical switches to enable our Web site to function properly. Some of these measures are those codes in order to trigger the function of certain codes. However, our use of FTP is completely unrelated to any privacy or data policies that we may be bound to and the BSA letter in our contract FTP privacy policy means that the FTP codes and so-called PIP privacy policies we publish have no meaning and carry no obligations or liability. We disclaim any

Figure 6 – Age group 14-17 (Policy 1)
Drafting Privacy Policies Kids Can Understand / March 2007

Privacy Policy

Al Atom Entertainment, Inc. (“Al Atom Entertainment”), our respected parent company, understands the need for privacy in the children’s online environment. Our privacy policy is designed to protect your privacy in connection with your use of our sites, services, and products. By using our services, you are agreeing to our terms of service and privacy policy.

We respect your privacy and are committed to protecting the information that we collect. This policy explains how we collect and use your personal information, and the choices you have about how we use that information.

1. Personal Information: We collect personal information from you only when you voluntarily provide it to us. This includes information such as your name, address, email address, and phone number. We use this information to provide personalized services to you, such as tailoring our content or offers to your interests.

2. Cookies: We use cookies to help you navigate our site and to personalize your experience. A cookie is a small file that is placed on your computer by our site. We use cookies to remember your preferences and to track your usage of our site. Cookies do not contain any personal information.

3. Security: We take reasonable measures to protect your personal information. However, no method of transmission is completely secure. We cannot guarantee that your information will not be accessed or disclosed to third parties.

4. Changes to Our Policy: We may update our privacy policy from time to time. We will post any changes on our site. Check our site periodically to see if there have been any changes to our policy.

5. Contact: If you have any questions about our privacy policy or practices, please contact us at privacy@alatom.com.
Figure 7 – Age group 14-17 (Policy 2)
d. Marketing Research. In addition, DoYouLookGood may collect information about you if you participate in any DoYouLookGood marketing research. The information collected may include your name, address, telephone number, email address, date of birth, gender, income and facts regarding your consumer habits and preferences.

e. Contests and Promotions. Lastly, DoYouLookGood may collect information about you if you participate in any DoYouLookGood contest or promotion. The information collected may include your name, address, telephone number, email address, date of birth, and facts relevant to the contest or promotion participation.

3. Use of Personal Information
DoYouLookGood uses your personal information for one or more of the following purposes: (1) identify who you are; (2) improve the content of the Website; (3) personalize the content or layout of the Website for consumers; (4) notify consumers of updates to the Website; (5) contact consumers for marketing purposes; (6) improve its products and services; (7) process and ship your order for products; or (8) process your consumer complaint or request.

5. Disclosure of Personal Information
Except as set out below, DoYouLookGood will not sell, transfer or disclose any of your personal information to any third party without your consent. Certain personal information may be disclosed to third parties solely for the purpose of processing or arranging delivery of your order or processing your complaint or request. DoYouLookGood may also disclose your personal information to third parties who administer contests, promotions and on-line activities on its behalf. In addition, DoYouLookGood must provide your personal information in response to a search warrant or other legally valid enquiry or order, or to an investigative body in the case of a breach of an agreement or contravention of law, or as otherwise required by law. DoYouLookGood may also disclose personal information to assist it in collecting a debt owed by you.

6. Security Safeguards
DoYouLookGood understands the importance of protecting your personal information and uses the latest Internet security protocols to protect personal information collected through the Website. However, you should be aware that the Internet is not a secured medium. Therefore, DoYouLookGood does
APPENDIX B: EXPERIMENTAL TESTING METHODS AND RESULTS

1. METHOD

1.1 Participants

The participants were 35 children and teens, aged 11 to 17, from London, Ontario, who use the Internet and were given parental consent to participate. There were 17 girls and 18 boys; in terms of age, 19 participants were in the 11 to 13 age group, and 16 were in the 14 to 17 age group. The contributions of two participants were subsequently eliminated from the analysis because of incomplete data.

1.2 Materials

The privacy policies of three of the top 50 websites preferred by Canadian kids and teens (Steeves, 2005) were selected for the experiments. The three websites - neopets.com, addictinggames.com and newgrounds.com - were chosen because they are among the top five websites preferred by the Canadian kids and teens, and because they require visitors to register and provide personal information, as well as use information collected automatically during their visits. The original policies were shortened in order to make them more suitable for use in the experiments, and then experimental versions were prepared for each policy by rewriting the original ones.

In preparing the experimental versions, we took into account the guidelines extracted from the literature on comprehension and the data collected from our focus groups, as identified in this publication. In order to approximate as closely as possible a real life situation, we tested the impact of all elements that were expected to influence the comprehension of policies as a group, rather than individually. Changes were made to the language, structure and design of the policies, but the content was kept constant in the two versions; the only content addition to the rewritten versions were dictionary definition for the unfamiliar words and technical terms, such as ‘third party’ or ‘IP address.’ In both versions, the sites' names were replaced with pseudonyms, in order to avoid influencing the participants who may have been familiar with the real websites.

1.3 Procedure

We used a within group experimental design, in which all participants read two different policies, one in the shortened original version, and the other one in the experimental, rewritten version. Participants were asked first to read one policy and then to identify and highlight specific elements, such as what information the site collects, what do they do with it, and who they share it with. Finally, participants were asked to answer a questionnaire, which tested their comprehension of specific passages in the policies. This procedure was repeated for the second policy. Participants were given a limited amount of time to
complete each task, for example, three minutes to read each policy, and one minute to find specific information or to answer one question in the questionnaire.

Two measures of comprehension were used for the comparison between the two policy versions: an overall score of participants’ answers to the questionnaire, and a score for the question asking them to identify types of information that each site collects. In addition, once they completed the questionnaire, participants were given the both versions of the policies they had worked with, and were asked to choose which of the two versions they would rather read and why.

2. RESULTS

The rewritten versions of the policies yielded better results than the original ones, both in terms of participants’ performances (comprehension) and their preferences.

2.1 Performance

The rewritten version led to better answers to the comprehension questionnaires, both overall and with respect to the specific types of information collected. The difference between the mean overall scores (% correct – % errors) for the two groups (30% for the original version versus 70% for the rewritten version) were statistically significant (t-test value =5.5, p = .05). The same was true for the performance on the specific question about types of information collected: the mean scores were 70% for the original version and 85% for the rewritten version (t-test value =2.4, p = .05).

2.2 Preference

When asked which of the two policy versions they would rather read, participants overwhelmingly preferred the rewritten versions, in 61 out of 64 cases. The reasons they gave for choosing the rewritten versions are consistent with the suggestions from focus group participants, as well as with the recommendations from the literature on document comprehension. Some of these reasons were the better structure of the rewritten policies and the fact that related information was grouped together and thus easier to find, the use of bullet-point lists, short paragraphs and clear headings, the presence of definitions for difficult words/technical terms, and the general friendlier, “easy on the eye,” and “less intimidating” appearance of the rewritten policies.
GAMESCO SHORTENED ORIGINAL

Gamesco Privacy Policy

At Gamesco, Inc. ("Gamesco"), we respect your right to privacy and we understand that visitors to Gamesco Sites need to control the uses of their personal information. The privacy policy below details the measures taken by Gamesco to protect your privacy in connection with your use of www.game1.com, www.filmsco.com, www.game2.com, www.gamesco.com, www.clipsco.com and other sites owned and operated by Gamesco ("Gamesco Sites").

How is my personally identifiable information used by Gamesco?

Customized experience. Gamesco gathers user information to provide you with a customized experience on our sites. Your user information helps us tailor the content, services, goods and advertising to your current and future needs. For this reason, we may ask you to register or to provide personal information when you post high scores, write reviews, download free software, enter a contest, order products, subscribe to a newsletter and/or visit certain areas of a Gamesco site.

E-mail. If you register with Gamesco Sites or purchase products from us, from time to time we may e-mail you with messages about our services or third party products and services we believe may be of interest to you, such as new products, features, services, special offers and updated information. The newsletters may contain code that enables our database to track your usage of the newsletters, including whether the email was opened and/or what links (if any) were clicked. We will combine that information with other information we have about you and may use that information to improve your site experience and/or provide customized e-mail communications to you. In addition, if you register with a Gamesco site or purchase products you may automatically receive emails confirming your registration and/or purchase and providing you with necessary information relating to the access or use of your registration and/or purchase.

When does Gamesco collect my information, including personally identifiable information?

Registration. When you register, Gamesco asks for your e-mail address, a user selected user name, and other information. Once you are a registered user you can update your profile and may be able to provide additional preferential information (e.g. a member name, a nickname, and certain user preferences).

Order Forms and Products Store. Gamesco also uses an order form for users to request information, products and services. For that order form, we collect a user's contact information (e-mail address) and necessary financial information to process the order (i.e. credit card number). Contact information from the order (including email) is used to deliver digital products and information from Gamesco. Gamesco may use third parties to accept and process orders and credit card purchases for merchandise and products, including software.

Special Contests or Promotions. Gamesco may occasionally present a special contest or promotion that is sponsored by another company. To qualify for entry in that contest or promotion, we may ask you to provide personal information. If we plan to share that information with the sponsor(s) or with others, we will provide a statement to that effect in the contest or promotion terms.
IP Address. All communication on the internet takes place between pairs of IP Addresses. Our Web servers will log the IP address that any connection is made from. We may use these IP addresses to help diagnose technical problems or prevent abuse of our systems or other site users. Your IP address may also be used to gather aggregate demographic data and target advertisements accordingly.

Cookies. A "cookie" is a small line of text that is stored with your Web browser for record-keeping purposes and to help us provide better service to you. Your browser has options to accept, reject, or provide you with notice when a cookie is sent. We use cookies to save your password (in an encrypted format) on your machine so you don't have to re-enter it each time you visit our site. We also use cookies to deliver content specific to your interests and track your downloads and purchases from the Gamesco Sites.

Adco Banner Advertisements. We use an outside company, Adco, to serve advertisements on our site. In the process of serving advertisements, the company places a cookie in your browser's cookie file and may use information (excluding your name, address, email address or telephone number) about your visits to this and other Web sites in order to provide advertisements on this site and other Web sites about goods and services that may be of interest to you. By delivering ads on the Gamesco Sites, Adco is able to record what ads a user -- identified by the unique cookie -- has seen, and what Gamesco site pages the user was viewing when the ads were delivered. This Web usage information is combined with other ad delivery information Adco has (e.g., what type of operating system your computer uses) collected from your visits to Gamesco Sites and other sites not affiliated with Gamesco. This non-personally identifiable information is used as part of the ad serving process for reporting and to select and direct the ads you see online at Gamesco Sites and other sites not affiliated with Gamesco. Additionally, some ads served by Adco are generated by third party ad serving systems that also may place a cookie or transparent GIF file on your browser to provide web usage information to those third parties. To find out more about those specific third party ad serving systems, please visit their sites and review their privacy policies.

If you want to learn more about Adco’s ad serving, privacy policies and the use of cookies, please visit the Adco site at [www.adco.com/privacypolicy.htm](http://www.adco.com/privacypolicy.htm).

Digital Rights Management. Applications you use or download from the Gamesco Sites may contain DRMS produced by Gamesco which allow for communication between the applications you use or download and our systems and which collect information describing your computer system in order to prevent illegal or unauthorized use of the applications. More specifically, the DRMS for applications licensed from the Gamesco Sites and the subscription service (e.g., Game1) may transmit the following pieces of information, along with other information, when you either enter a purchase key or sign in with your subscription service user name and password: Operating System, CPU Version Information (including serial number from a serial-number-enabled Pentium III), BIOS Version Information, NetBIOS Computer Name, DOS HD Serial Number, Hard Drive Size / Geometry, S.M.A.R.T. IDE HD Serial Number, Network Card MAC Address, IP Address and Size of Physical Memory.

Information from Other Sources. For reasons such as improving member experience and providing customized communications to our users, we may receive information about you from third party sources and our web logs (see the "Web Logs" section below) and add it to the information that we have received from you.

Weblogs. Web logs automatically record anything a web server sees, which may include email addresses you enter into a form or pages viewed by a user at a particular IP address. If you are a registered user of a Gamesco Site we may use web log information about your use of the Gamesco Sites in order to inform you about content, products, or services in accordance with your email options.

Who does Gamesco share information with?

We will not share your personally identifiable information with third parties, aside from entities that perform
services for us, such as fulfilling orders or processing payment, that either are bound to comply with our privacy policy or have privacy policies that protect your information. Gamesco may use third parties to accept and process orders for merchandise and products, including software, and such third parties may get access to your personal information for the purposes of providing services or products to you on Gamesco’s behalf.

However, Gamesco may disclose information you provide if required to do so by law or if we have a good faith belief that disclosure is necessary to (1) comply with the law or with legal process served on Gamesco; (2) protect and defend the rights or property of Gamesco; or (3) act in an emergency to protect someone’s safety.

We may request demographic information from you (for example, your age, education level or household income) from time to time. We will not share that information in a manner that identifies you as an individual with any other entity, unless we let you know that at the time of collection or we have your permission. When we share demographic information with third parties, we will give them aggregate information only.

In the event that Gamesco is acquired by another company, your personal information may be part of the assets transferred to the acquiring party.

**What else should I know about my privacy?**

**Tell a Friend.** If a user elects to use our referral service for informing a friend about our site or particular features or content, we ask them for the friend’s name and email address. Gamesco will automatically send the friend a one-time email inviting them to visit a Gamesco Site. Gamesco stores this information for the sole purpose of sending this one-time email.
GAMESCO PRIVACY POLICY

For the words marked with *, there are DEFINITIONS at the end of this policy.

This privacy policy explains what information we collect about you when you visit our sites (www.game1.com, www.filmsco.com, www.game2.com, www.gamesco.com, www.clipsco.com) and what we do with it. Click on the links below to find out more:

1. What information do we collect about you?
2. What information do third parties* collect about you when you visit our sites?
3. How do we use your information?
4. How do third parties* use the information they collect about you when you visit our sites?
5. Who do we share your information with?

1. What information do we collect about you?

We collect the following information from you:

• email address, a user name that you select, and other information
• financial information (for example, credit card number)
• demographic information (for example, your age, education level or household income)
• email addresses of friends you want us to tell about our sites

If you want, you may also choose:

• a member name
• a nickname
• certain user preferences

We collect this information when you:

• visit our websites
• register with us
• post high scores
• write reviews
• download free software
• enter a contest or promotion
• subscribe to our newsletter
• receive our newsletter
• fill out one of our forms, for example when you:
• order products and services from our sites
• request information from us

We also collect information about:

• your computer, including your IP address*
• the pages that you visit on our sites
• the ads that you see
• what you buy and download from our sites
• whether you opened our newsletter
• whether or not you clicked any of the links inside the newsletter

We collect this information:

• in weblogs*
• by saving cookies* on your computer
• by including a special computer program in our newsletter

Our applications that we post on the site may contain digital rights management* systems. When you download and use these applications, we also collect information about your computer, including:

• Operating System
• CPU Version Information (including serial number from a serial-number-enabled Pentium III)
• BIOS Version Information
• NetBIOS Computer Name
• DOS HD Serial Number
• Hard Drive Size / Geometry
• S.M.A.R.T. IDE HD Serial Number
• Network Card MAC Address
• IP Address*
• Size of Physical Memory
• Other information

We collect other information about you from third parties*.

2. What information do third parties* collect about you when you visit our sites?
Third party* advertisers collect information about:

- what ads you see when you’re on our sites
- what pages you are on when you see the ads
- what type of operating system your computer uses
- other information about your visit
- other information about your computer

Third party* advertisers collect this information by using cookies* and transparent GIF files*. Third party* advertisers do not collect your name, address, email address or telephone number.

3. How do we use your information?

We collect personal information about you to:

- **decide what content to display and which products to advertise to you when you visit our sites**

  To do this, we combine information we collect from you with information we collect about your visit, your computer and how you use our newsletter and other products.

- **send you emails and newsletters**

  From time to time, we may e-mail you with messages about new products, features, services, special offers and updated information from us or from third parties*. We also send you confirmation emails automatically when you register and/or purchase products from us.

- **invite your friends**

  If you use our referral service to tell a friend about our sites, you’ll have to give us your friend’s name and email address, so we can send them an email inviting them to visit our site. We will only use their name and email address this one time, so we can send them the email invitation.

- **complete a sale with you and deliver products directly to you**

  We may use third parties* to accept and process orders and credit card purchases.

- **save your password**
We save your password in an encrypted format on your computer, so you don't have to re-enter it each time you visit our sites.

• find technical problems
• prevent illegal or unauthorized use of our applications
• prevent abuse of our systems or other site users
• create aggregate demographic data* about our users

4. How do third parties* use the information they collect about you when you visit our sites?

Third party* advertisers use the information they collect about you to:

• decide which products to advertise to you when you are on our sites and other sites

If you want to learn more about how our third party* advertisers serve ads or use cookies, please visit their web sites and read their privacy policies.

5. Who do we share your information with?

We share the information that we collect about you with companies that:

• fill orders and process payments for us

  We may use third parties* to accept and process orders for merchandise and products, including software, and to process credit card purchases. We may give your personal information to these third parties* for the purposes of providing services or products to you on our behalf.

• sponsor our contests and promotions

  If we plan to share your information with the sponsor(s) or with others, we will tell you on the page that talks about the terms of the contest or promotion.

We share demographic information about you with third parties*.

  Usually when we share demographic information with third parties, we give them general statistics about our users as a group. We will only share
demographic information in a way that identifies you as an individual if:

- we told you we were going to do this when we collected the information

or

- we ask your permission before we share it.

We may also share information about you with others in special situations:

- if we are required to do so by law
- if we are required to do so because we’ve been served with a legal process (like a warrant or a subpoena)
- to protect and defend our rights or property
- to protect someone’s safety in an emergency
- if our company is bought by another company (in this case, your personal information may be part of the assets transferred to that company)

DEFINITIONS:

* **Aggregate demographic data** = statistical information about our visitors as a group. For example, XX% of our registered users are female, or XX% of our visitors are between 14 and 24 years old.

* **Cookies** = small text files that websites save on your hard drive while you are browsing, in order to collect information about how you use the site. You can set your browser to accept or reject cookies, or to let you know when a website sends you a cookie.

* **Digital Rights Management** = DRM is a system that makes it impossible for people to copy or distribute digital content, unless they get permission from the copyright owner first.

* **IP Address** = a string of numbers that uniquely identifies every computer on the Internet. All computers on the Internet have their own IP address so they can be identified by other computers on the network.

* **Third party** = another company that we have a legal agreement with, such as an advertiser or a sponsor.
* **Transparent GIF file** = an image that is so small, you can’t see it. A transparent gif placed on a web page or in an email can tell third parties what the visitor to the page or the person who receives the email does.

* **Weblog** = A computer file that automatically records what happens on a website. For example, weblogs keep a record of where visitors are coming from, how often they return, and how they navigate through the site.
Playclub Privacy Policy

Playclub.com is committed to providing a fun, entertaining, and safe Web site for people of all ages. We are dedicated to safeguarding any personal information collected on-line and to helping parents and children learn how to exercise control over personal information while exploring the Internet. Because many of the visitors to this site are children, we take care that our content is suitable for children. In addition, we take special measures to help children protect their privacy while on-line. For example, we do not ask children to disclose more personal information than is necessary for them to participate in a particular activity, and we take efforts to prevent children from posting contact information.

To help ensure a rewarding on-line experience for our visitors - and for the parents of our visitors who are children - we provide you with this summary of our information practices.

I. The Information We Collect

At Playclub.com, the only personally identifiable information we collect from users 12 years old and younger is a valid e-mail address. And, we ONLY use this information to send these users one message to activate their Playclub account, and then the e-mail address is completely removed from our system. We also ask users 12 years old and under for certain non-personally identifiable information, such as birth date, gender, state/province, zip/postal code, and country.

Playclub requires users 13 years and older to provide a first and last name, valid e-mail address, birth date, gender, and postal code. Although they have the option to voluntarily enter additional information (such as home address, state and country), it's not a requirement to activate their account. For some of our on-line activities such as polls or surveys, we may ask users to provide additional information that is not personally identifiable, such as city or state of residence or a visitor's favourite cartoon character.

Users can also change their user information supplied upon registration (except for user name, original e-mail address and date of birth) on this page: http://www.playclub.com/userinfo.phtml and following the direction on such page. When a child under 13 enters a contest, we will ask for a parent's e-mail address so that we can notify the parent that we have received personal information from the child. We do not knowingly collect names and e-mail addresses from children under 13 without notifying the parent via e-mail and giving them the opportunity to remove their child's name from the list of entries. Winners of our contests or sweepstakes are notified by e-mail, and are required to send us by fax or regular mail a form containing their street address. Winners who are minors must have the form signed by a parent in order to receive their prizes.

Additionally, when visitors come to our site, we automatically collect some non-personally
identifiable "computer" information, such as the type of computer operating system (e.g., Windows 95 or Mac OS), the user's "IP Address", the web browser (e.g., Netscape, Internet Explorer) being used, and information regarding the Internet service provider.

II. How We Use the Information

We use visitors' personal information for our internal purposes of enabling visitors to enter one of our on-line contests or sweepstakes, to subscribe to our online newsletter, or to inform users of upcoming events and special announcements. We use the e-mail addresses of parents to notify them when we have received information from their children and to give them the opportunity to have their child's name removed from our lists. We do not keep any personal information we obtain through a contest or sweepstakes after the particular event is completed. We use the names and e-mail addresses of subscribers to our e-mail newsletter only to send them the newsletter. Each newsletter contains instructions on how to be removed from the subscription list by sending us a return e-mail. We also use visitor's personal information to track usage and to ensure user are following the site's Terms and Conditions. Sometimes we will use agents or contractors to help us provide services to our visitors, such as helping us conduct a sweepstakes and sending prizes to the winners. In these cases, we require the agent or contractor to keep the information confidential and to use it only for the specific services they are performing. In addition, please review the section on Collection of Information by Third-Party Sites and Sponsors for a description of the limited instance whereby personal information collected on the site may be supplied to third parties with the consent of the user.

We sometimes use the non-personally identifiable information that we collect to improve the design and content of our site, to personalize our visitors' experience on Playclub.com, and to offer products, programs, and services. We also may use this information in the aggregate to analyze site usage, as well as to offer products, programs, or services.

We will disclose information we maintain when required to do so by law, for example, in response to a court order or a subpoena. We also may disclose such information in response to a law enforcement agency's or other public agency's (including schools or children services) request or if we feel that such disclosure may prevent the instigation of a crime.

We will not use or transfer personally identifiable information in ways that are materially different from the ones described above without also providing parental notification of such practices and obtaining consent for any materially different uses.

III. Collection of Information by Third-Party Sites and Sponsors

Our site contains links to other sites, including those of sponsors, advertisers and survey companies, whose information practices may be different from ours. Sometimes the other sites might conduct contests or sweepstakes that are promoted on Playclub.com. Visitors should consult the other sites'
privacy notices, since those sites are not covered by our privacy policy and may follow procedures that are different from ours. Playclub never gives a user's e-mail address or other registration information to such third parties without permission, however, if you choose to "opt-in" (click on a box to receive a third party's information), to register with one of our sponsors, or not to "opt-out" (uncheck a checked box that will provide a sponsor with your information), that means you have allowed Playclub to give your registration information and other collecting information, including e-mail address, to that third party.

Additionally, sometimes third parties use cookies, text files, or similar technologies (see "IV. Cookies" below) to collect user preferences for various purposes. The use of these technologies by such third parties is subject to their own privacy policies, not ours. Visitors who do not wish their activities to be subject to this data collection should consult the websites of these third parties for their procedures for opting out of cookie placement.

IV. Cookies

Playclub.com uses a software technology called "cookies." Cookies are small text files that we and certain third parties place in visitors' computer browsers to store their preferences. Cookies themselves do not contain any personally identifiable information. Although cookies could enable us to relate a visitor's use of this Web site to personal information that a visitor has provided, such as an e-mail address, we do not use them for this purpose. We do use "cookies" to determine how many visitors we have and how often they visit various sections of our site.
PLAYCLUB REVISED

PLAYCLUB PRIVACY POLICY

For the words marked with *, there are DEFINITIONS at the end of this policy.

This privacy policy explains what information we collect about you and what we do with it. Click on the links below to find out more:

1. What information do we collect about you?
2. What information do third parties* collect about you when you visit our site?
3. How do we use your information?
4. How do third parties* use the information they collect about you when you visit our site?
5. Who do we share your information with?

1. **What information do we collect about you?**

   We collect the following information from you:
<table>
<thead>
<tr>
<th>IF YOU ARE 12 OR YOUNGER</th>
<th>IF YOU ARE 13 OR OLDER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>We ask you to tell us:</strong></td>
<td><strong>We ask you to tell us:</strong></td>
</tr>
<tr>
<td>• valid e-mail address</td>
<td>• first and last name</td>
</tr>
<tr>
<td>• birth date</td>
<td>• valid e-mail address</td>
</tr>
<tr>
<td>• gender</td>
<td>• birth date</td>
</tr>
<tr>
<td>• state/province</td>
<td>• gender</td>
</tr>
<tr>
<td>• postal code</td>
<td>• postal code</td>
</tr>
<tr>
<td>• country</td>
<td>• other information such as</td>
</tr>
<tr>
<td>• a parents’ email address if you enter a contest</td>
<td>• city or state/province</td>
</tr>
<tr>
<td>• name and e-mail address when you enter a contest, if your</td>
<td>• favourite cartoon character</td>
</tr>
<tr>
<td>parent doesn’t tell us to delete them</td>
<td>• street address by fax or regular mail if you win a</td>
</tr>
<tr>
<td>• street address by fax or regular mail if you win a contest</td>
<td>contest</td>
</tr>
<tr>
<td>• your parent’s signature to receive a prize</td>
<td>• your parent’s signature to receive a prize if you are a</td>
</tr>
<tr>
<td></td>
<td>minor</td>
</tr>
<tr>
<td></td>
<td><strong>If you want, you can also tell us:</strong></td>
</tr>
<tr>
<td></td>
<td>• your home address, state and country</td>
</tr>
</tbody>
</table>

**We collect this information when you:**

- register for an account
- vote in a poll
- fill out a survey
- enter a contest
• receive a prize

**We also collect information about:**

• your computer:
  o type of operating system (for example, Windows 95 or Mac OS)
  o IP Address*
  o your web browser (for example, Netscape or Internet Explorer)

• your Internet service provider
• your user preferences on our site
• how you use our website

**We collect this information automatically when you visit our site or by putting cookies* on your computer.**

2. **What information do third parties* collect about you when you visit our site?**

  **Third parties*, such as sponsors, advertisers and survey companies, collect information about:**

  • your user preferences on our site, by putting cookies*, text files* and other technologies like that on your computer
  • information you give them when you enter one of their contests or sweepstakes that you see on our site

3. **How do we use your information?**

  **We use the information we collect about you to:**
<table>
<thead>
<tr>
<th><strong>IF YOU ARE 12 OR YOUNGER</strong></th>
<th><strong>IF YOU ARE 13 OR OLDER</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• send you one message to activate your account (after that we delete your email address from our system)</td>
<td>• let you enter a contest or sweepstakes (after the contest or sweepstakes, we delete that information from our system)</td>
</tr>
<tr>
<td>• tell your parent that you want to enter a contest, and give them the opportunity to delete your name from the list</td>
<td>• let you subscribe to our online newsletter</td>
</tr>
<tr>
<td>• put your name and e-mail on a contest list when you enter a contest, if your parent doesn’t tell us to delete them</td>
<td>• tell you about upcoming events and special announcements</td>
</tr>
<tr>
<td>• let you know if you win a contest</td>
<td>• let you know if you win a contest</td>
</tr>
<tr>
<td>• send you a prize you won</td>
<td>• analyze how our visitors as a group use our website (for instance, to know what percent of our registered users are female)</td>
</tr>
<tr>
<td>• analyze how our visitors as a group use our website (for instance, to know what percent of our registered users are female)</td>
<td>• decide what content to display and which products, programs and services to advertise to you when you visit our site</td>
</tr>
<tr>
<td>• decide what content to display and which products, programs and services to advertise to you when you visit our site</td>
<td>• see how many visitors we have and how often they visit various sections of our site</td>
</tr>
<tr>
<td>• see how many visitors we have and how often they visit various sections of our site</td>
<td>• ensure you are following our site's rules</td>
</tr>
<tr>
<td>• ensure you are following our site's rules</td>
<td>• improve the design and content of our site</td>
</tr>
<tr>
<td>• improve the design and content of our site</td>
<td>• store your preferences</td>
</tr>
<tr>
<td>• store your preferences</td>
<td></td>
</tr>
</tbody>
</table>
If we plan to use your information in any way other than those described above, we will first ask your permission. We will also ask your parents’ permission if you are 12 or younger.

4. How do third parties* use the information they collect about you when you visit our site?

Third parties* use the information they collect about you:

• for various purposes

The way third parties* use the information they collect about you may be different from the way we use it. If you want to learn more about how third parties* collect and use your information and about how they use cookies, you should visit their web sites and read their privacy policies.

5. Who do we share your information with?

We share information that we collect about you with:

• third parties* such as sponsors, advertisers and survey companies, but only if you give us your permission by:

  o checking a box to receive information from these sponsors, advertisers, or survey companies
  or
  o registering with these sponsors
  or
  o not unchecking a box that is already checked that says we can give a sponsor your information.

• other companies that may help us provide services to you, such as helping us with a sweepstakes and sending prizes to the winners. These companies must not share your information and must only use it for the specific services that they are doing for us.

We may also share information about you with others in special situations:

• if required by law - for example, if we receive a court order or a
subpoena

• if a law enforcement agency or other public agency (including schools or children’s services) ask us to

• if we feel that this may prevent a crime

DEFINITIONS:

* **Cookies** = small text files that websites save on your hard drive while you are browsing, in order to collect information about how you use the site.

* **IP Address** = a string of numbers that uniquely identifies every computer on the Internet. All computers on the Internet have their own IP address so they can be identified by other computers on the network.

* **Text files** = computer files that websites use to store information about their visitors.

* **Third party** = another company that we have a legal agreement with, such as an advertiser or a sponsor.
Privacy Statement for Games.com

Games.com has created this privacy statement in order to demonstrate our firm commitment to privacy. The following discloses the information gathering and dissemination practices for this Web site: Games.com.

Information Automatically Logged

We use your IP address to help diagnose problems with our server and to administer our Web site. Your IP address is also used to help identify you for on-line voting.

Cookies

Our Site uses cookies for the purpose of accumulating Site Gold. For each unique area you visit, you receive one gold unit. This information is not used for marketing purposes.

Advertisers

We use an outside ad company to display ads on our site. These ads may contain cookies. While we use cookies in other parts of our Web site, cookies received with banner ads are collected by our ad company, and we do not have access to this information.

Third Party Advertising

Some ads appearing on this website are delivered to you by Adco1, our Web advertising partner. Information about your visit to this site, such as number of times you have viewed an ad (but not your name, address, or other personal information), is used to serve ads to you on this site. For more information about Company 1, cookies, and how to “opt-out”, please click here.

We use Adco2, Adco3, and other third-party advertising companies to serve ads when you visit our Web site. These companies may use information (not including your name, address, email address or telephone number) about your visits to this and other Web sites in order to provide advertisements on this site and other sites about goods and services that may be of interest to you. If you would like more information about this practice and to know your choices about not having this information used by these companies, please click here.

Third Party Cookies

In the course of serving advertisements to this site, our third-party ad server, Adco2, Adco1 or their affiliates, or individual advertisers may place or recognize a unique “cookie” on your browser.

Registration Forms

Our site’s registration form requires users to give us contact information (like their name, email address), unique identifiers (like their email address), and demographic information (like their zip code or age).

Contact information from the registration forms is used to get in touch with the customer when necessary.
Unique identifiers (such as email address) are collected from Web site visitors to verify the user's identity, and for use as account numbers in our record system.

Demographic and profile data is also collected at our site. This information is shared with advertisers on an aggregate basis.

**Order Forms**

Our site uses an order form for customers to request information, products, and services. We collect contact information (like their email address).

Contact information from the order forms is used to get in touch with the visitor when necessary.

**Surveys**

Our online surveys ask visitors for contact information (like email address).

Contact information from the surveys is used to identify users. The customer's contact information is also used to get in touch with the visitor when necessary.

**Contests**

We run contests on our site in which we ask visitors for contact information (like email address). Contact information from the contests is used to get in touch with the visitor when necessary.

**Special Relationships**

Games.com is a Bigco.com affiliate. All user data is made available to Bigco.
GAMES REVISED

PRIVACY STATEMENT FOR GAMES.COM

For the words marked with*, there are DEFINITIONS at the end of this statement.

This privacy statement explains what information we collect about you and what we do with it. Click on the links below to find out more:

1. What information do we collect about you?
2. What information do third parties* collect about you when you visit our site?
3. How do we use your information?
4. How do third parties* use the information they collect about you when you visit our site?
5. Who do we share your information with?

1. What information do we collect about you?

We collect the following information from you:

- contact information (for example, your name and email address)
- demographic and profile information (for example, your zip code or age)

We collect this information when you:

- fill out our registration form
- fill out an order form to request information, products, and services from us
- participate in our surveys
- enter our contests

We also:

- automatically record your IP address* when you visit our site
- save cookies* on your computer
2. What information do third parties* collect about you when you visit our site?

Third party* advertising companies collect information about:
• your visit to our site
• the number of times you have viewed an ad
• other information

Third party* advertising companies do not collect your name, address, email address, telephone number, or other personal information.

3. How do we use your information?

We use the information we collect about you to:
• check that you are who you say you are
• create account numbers in our record system
• identify you for on-line voting
• get in touch with you when necessary
• give you points: for each unique area that you visit on our site, you receive one gold unit; we don`t use this information to try to sell things to you.
• find problems with our server
• administer our web site

4. How do third parties* use the information they collect about you when you visit our site?

Third party* advertising companies use the information they collect about you to:
• decide which ads to show you when you visit our site and when you visit other sites

If you want to learn more about how third parties* serve ads, about their privacy
policies and about how they use cookies, please visit their web sites and read their privacy policies.

5. **Who do we share your information with?**
   - We share all the information we collect about you with the company that owns us.
   - We share the demographic and profile information we collect about you with advertisers, but only in the form of general statistics about our users as a group (for example, to know the percent of our registered users who are female).

**DEFINITIONS:**
* **Cookies** = small text files that websites save on your hard drive while you are browsing, in order to collect information about how you use the site.
* **IP Address** = a string of numbers that uniquely identifies every computer on the Internet. All computers on the Internet have their own IP address so they can be identified by other computers on the network.
* **Third party** = another company that we have a legal agreement with, such as an advertiser or a sponsor.
APPENDIX D: COMPREHENSION QUESTIONNAIRES

Comprehension Questionnaire: Gamesco

1. According to the policy, when you visit this site, they collect information about:
   (check all the answers that apply)
   - what you do on this site
   - the content of your personal emails (such as hotmail or others, for example to see if you mention the name of this site)
   - the email addresses of your friends that you ask us to tell about our site
   - the keys that you press on the keyboard while you’re on the site
   - your computer and its features
   - who you are (for example, your birth date, gender or email address)
   OR
   - I couldn’t figure it out

2. Can a lawyer or the police get the information that this site collects about you?
   (check the answer that applies)
   Yes □   No □   I couldn’t figure it out □

3. Can this site give your information to anyone if someone might be in danger? (check the answer that applies)
   Yes □   No □   I couldn’t figure it out □

4. What is a ‘transparent GIF file’? (write your answer below)

   OR
   - I couldn’t figure it out
5. Does this site share information about you with thirds parties? *(check the answer that applies)*
   Yes □ No □ I couldn’t figure it out □

6. Imagine that this website wants to share your demographic information with a third party in a way that identifies you as an individual. Must they first have your permission? *(check the answer that applies)*
   □ Definitely yes
   □ Yes, but only if they didn’t tell you about this sharing of your information when they collected the information from you
   □ Definitely no
   **OR**
   □ I couldn’t figure it out

7. Please write down the things that should have been explained in this policy but weren’t (for example, stuff that you need to know to understand exactly what information they collect about you and what they do with it).
8. Please write down the things that were unclear or confusing in this policy.

9. Policy you’re more likely to read: VERSION 3 / __
Comprehension Questionnaire: Playclub

1. According to the policy, when you visit this site, they collect information about:
   (check all the answers that apply)
   - [ ] who you are (for example, your birth date, gender or email address)
   - [ ] the images that you take with your webcam
   - [ ] the number and type of files that you have stored on your computer
   - [ ] what you do on this site
   - [ ] the keys that you press on the keyboard while you’re on the site
   - [ ] the company that gives you Internet access
   **OR**
   - [ ] I couldn’t figure it out

2. Is it true that the only information about you that this site collects if you are 12 or younger is a valid e-mail address? (check the answer that applies)
   - [ ] Yes
   - [ ] No
   - [ ] I couldn’t figure it out

3. Imagine that you are 12 or younger and you try to enter a contest on this site. The site sends your parent an email to let them know that you want to enter the contest, but your parent does not reply to that email. Can the site collect information from you? (check the answer that applies)
   - [ ] Yes
   - [ ] No
   - [ ] I couldn’t figure it out

4. This company only shares information about you with third parties if they have your permission. According to the policy, what are the ways that you can give them your permission? (check all the answers that apply)
   - [ ] by not changing a box that the company has already checked for you that says you agree to receive information from a third party
   - [ ] by checking a box that says the company can give a sponsor your information
   - [ ] by providing your information to sponsors to register with them
☐ by not changing a box that the company has checked for you that says the company can give a sponsor your information
☐ by checking a box that says you agree to receive information from a third party

OR
☐ I couldn’t figure it out

5. What is an ‘IP address’? (write your answer below)

OR
☐ I couldn’t figure it out

6. Please write down the things that should have been explained in this policy but weren’t (for example, stuff that you need to know to understand exactly what information they collect about you and what they do with it).
7. Please write down the things that were unclear or confusing in this policy.

8. Policy you’re more likely to read: VERSION 1 / ___
Comprehension Questionnaire: Games

1. On this site, do they collect information about you and your computer without directly asking you? (check the answer that applies)
   Yes ☐  No ☐  I couldn’t figure it out ☐

2. According to the policy, when you visit this site, they collect information about:
   (check all the answers that apply)
   ☐ the keys that you press on the keyboard while you’re on the site
   ☐ what you do on this site
   ☐ the other programs that you’re running on your computer (not on the Internet) while you’re on the site (for example: word processor, Photoshop, your own games, etc.)
   ☐ who you are (for example, your name, age or email address)
   ☐ the images that you take with your webcam
   ☐ the content of messages that you send to other people who are on the site at the same time
   OR
   ☐ I couldn’t figure it out

3. What is a ‘third party’? (write your answer below)

   OR
   ☐ I couldn’t figure it out
4. Please write down the things that should have been explained in this policy but weren’t (for example, stuff that you need to know to understand exactly what information they collect about you and what they do with it).

5. Please write down the things that were unclear or confusing in this policy.

6. Policy you’re more likely to read: VERSION 2 / __
APPENDIX E: INFORMATION LOCATION TASK – EXAMPLES

Games, Revised
Green: Information Collection
Pink: Information Use
Orange: Information Sharing

Games, Shortened Original
Green: Information Collection
Pink: Information Use
Orange: Information Sharing
Gamesco, Revised
Green: Information Collection
Pink: Information Use
Orange: Information Sharing

Gamesco, Shortened Original
Green: Information Collection
Pink: Information Use
Orange: Information Sharing