Policies and Practices of Internet Service Provider

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Index

1 Abstract ................................................................. 3
2 Introduction ................................................................... 4
3 Discussion ...................................................................... 4
3.1 Objectives ................................................................. 4
3.2 Survey Hypothesis ...................................................... 5
3.3 Methodology ............................................................. 5
3.4 Evaluated questions ................................................... 7
4 Results ........................................................................ 9
4.1 Results for ISP which provide full (WWW) Internet access ........... 9
  4.1.1 Availability of the Information policy ......................... 9
  4.1.2 Content of the Information policy ............................. 11
  4.1.3 monitoring traffic .................................................. 12
  4.1.4 Actions after Information Policy violations .................. 12
  4.1.5 Blacklists - denial of access ................................... 13
  4.1.6 Amount of policy violation ..................................... 14
4.2 Results of ISPs which provide access to big/professional - and media customers .......... 14
4.3 Special cases ............................................................ 15
5 On-line available policies of Internet Service Providers .................. 15
6 Conclusions ................................................................... 18
7 Recommendations - or Spamming and Flaming, how to take a survey on the Internet .... 19
8 References ..................................................................... 21
9 Appendices ..................................................................... 22
Abstract

This paper discusses the results of a survey about Internet Provider policies and practices. The Information Policy describes the acceptable use of the resources of the ISP and the Internet. The survey was taken as a term project in Prof. Lance J. Hoffmans class "CS230 Information Policy" at The George Washington University.

The questionnaire was sent to 277 Internet Service Providers and the URL (Universal Resource Locator) was published in several newsgroups. Due to the low response rate (17 out of 277 or 6%), only limited interpretations can be made.

Based on available responses, the results are:

- The majority of Internet Service Providers (ISP) have a written Information Policy (90%).
- Commercial ISPs do not have a more severe defined policy than educational organizations.
- Internet Service Providers in the US did not include more specific restrictions in their policy after the passage of the Telecommunications act in spring 1996.
- Only 36% of the surveyed ISPs have their policy available on-line.
- There is no general policy applicable to all ISPs, and also no guidelines regarding what to include in the policy.
- ISPs who provide service to big/professional customers or media customers have a less restricted policy as they do not have contact with the endusers.
- Most Internet Service Providers are not monitoring their customers in order to enforce their policy.
- The large majority of ISPs verify complaints about policy violations before they take any actions.
- If policy violations are confirmed, a warning that further violations will result in revoking the account will be given prior to the termination of the account.
- ISPs are not maintaining a black-list of users, to whom they do not want to provide access to the Internet because of earlier policy violations by this individual.
- At the average, one out of approximately two hundred users is known to violate the policy of his/her Internet Service Provider.
- Not all policy violations or violations of the "nettiquette" are brought to the attention of the Internet Service Provider.

There exists nothing like a general Information Policy for Internet Service Providers. Often, the existing policies are not easy to read or do not provide enough detailed information and examples of violations. A general Internet Information Policy should be created which would include recommendations on how to behave on the Internet. This policy should be written in a simple way with links to more explicit explanations and examples. If a policy like this would exist and would be widely accepted, individual Internet Service Providers would then only need to provide an additional chapter on their personal needs.
2 Introduction

On February 14, 1996, a student of the University of Maryland at College Park used the Internet to harass a family in Montgomery County [6]. In our course CS230 -Information Policy, we had the opportunity to talk to the author of this posting on the same day. This event and its result were widely discussed in the Washington Post [5] [9], other newspapers, and in Newsgroups on the Internet. It once more raised the question how and if the Internet should be regulated and/or controlled so that inappropriate or unlawful behavior can be avoided.

The above mentioned incident gave me the idea to take a survey on the policies and practices of Internet Service Providers, as they are the ones who decide what happens if one of their subscribers violates the "nettiquette" (code of conduct for the Internet). I wanted to determine whether a typical Information Policy exists, what is included in this policy and what actions are taken if someone violates this policy. I also wanted to investigate how many known violations do occur.

To determine these points, I created a questionnaire and programmed a CGI (Common Gateway Interface) script in Perl (Script programming language) which allows the person who fills out the questionnaire to submit it over the Internet. The result is sent to me with an e-mail message. I targeted the known Internet Service Providers and sent a message to those Internet Providers with which I was already familiar. This message gave me the opportunity to survey the policy of The George Washington University, although this was not my intention. This can be reviewed in a separate section of this paper.

An on-line version of this paper can be accessed at
http://www.seas.gwu.edu/student/reto/cs230/

In addition to this paper, it cites other sources on the Internet and available policies of Internet Service Providers.

3 Discussion

3.1 Objectives

In this survey, I want to determine if Internet Service Providers have a clear policy in which they define the way their customers can use their service and what is part of the policy. In addition, I want to determine how the ISP respond if someone violates their policy. I also investigate the amount of known incidents where users have violated a policy.

I also want to determine if commercial Internet Service Providers have a different policy than educational organizations. If the geographical diversity of the responses are large enough, the content of the policy will be investigated in relation to the country where the ISP is located in order to determine if national differences exist.
3.2 Survey Hypothesis

In order to better define the questions in the questionnaire, I defined the following hypotheses:

- every ISP has a written policy in which the acceptable use of the service is defined
- commercial ISPs have a more severe defined policy than educational organizations
- ISPs in the US have included in their policy the aspect that it is illegal to make pornography accessible to minors
- ISPs that provide full Internet access have their policy available on-line
- there is no general policy or a guideline regarding what is to be included in the policy
- ISPs who provide service to big/professional customers or to media customers have a less restrictive policy as they do not have contact with the endusers
- to enforce their policy, ISPs monitor (partially) the traffic of their customers
- if complaints about the behavior of a subscriber are made known to the provider, the provider will take immediate action
- if complaints are brought to the ISPs attention, a warning or educational discussion with the subscriber will be the first action rather than immediately terminating the account.
- ISPs are maintain a black-list of users to whom they do not want to provide Internet access because of earlier policy violations by this individual
- if they have a black-list, they do not share it with their competitors
- the amount of known policy violations in which actions were taken are smaller than 1 out of 1000 users

3.3 Methodology

I chose to use the possibilities of the Internet to distribute my questions and collect the answers. I created a questionnaire based on the survey principles found in literature [3] [4] and the stated hypotheses from the last section. The survey consists of two parts. In the first part, I collect the data about the Internet Service Provider itself. This includes the following points:

- the category to which the organization belongs (e.g. education)
- the country where the organization's headquarters is located
- organization name (optional)
- contact person (optional)
- a checkbox if they wish to receive the URL of the finished paper
- a checkbox where they can provide permission to mention the organization by name in my survey
- an inputfield where they can specify other surveys in the same field as this one

This first part of the questionnaire allows me to segment the answers into categories. In addition, it is possible to determine if there are policy differences between countries and organization type. Further, it gives anyone the possibility to fill out this questionnaire anonymously.
The second part of the questionnaire is dedicated to Internet related questions. There, I define the questions I want to evaluate in my survey. It also includes three questions (1 to 3) that help me to place the answer in the appropriate category. The Internet related questions are:

- what kind of services do you provide
- how many Internet service subscribers does your organization have
- indicate your primary customers
- do you have a written, approved Information Policy for your service
- if not, do you have an informal Information Policy
- is your Information Policy available on-line to your customers
- do your customers have to indicate that they will accept your policy at the beginning of the contract
- points covered by the Information Policy
- do you monitor the traffic of your customers
- when do you take actions if your policy has been violated
- what are your actions
- do you have a list of individuals to whom you do not want to provide access
- if yes, do you share this list with other Internet Service Providers
- indicate your assumption of how often violations of your policy occur in relation to your total customers

The complete questionnaire with all the possible answers can be reviewed in Appendix 1. To collect the answers, I programmed a CGI script (Appendix 3). The script sends the answers of the survey to me with an e-mail message. It also gives personal feedback to the individual who filled out the questionnaire if he/she indicated the name in the first part of the questionnaire.

**Picture 1:** Questionnaire
As the targeted organizations were Internet Service Providers, I used two ways to approach them and get their answers.

I collected the e-mail addresses from the Internet Society's home page [1], mentioned in an article in the Washington Technology [2] magazine. I sent an e-mail message (Appendix 3) to these organizations to announce my questionnaire. My mailing list consisted of 277 e-mail addresses from Internet Service Providers from all over the world. In addition to [1], I also included the providers I knew through my experience as a system manager (this consists mostly of organizations in Switzerland).

I posted a message announcing my questionnaire once to the following newsgroups:

- comp.admin.policy
- comp.infosystems.www.authoring.misc
- comp.security.misc
- news.admin.misc
- news.admin.net-abuse.misc

These newsgroups are typically visited by system administrators; the subject of my survey falls in the discussed fields of these newsgroups.

3.4 Evaluated questions

This chapter describes how I evaluated the questions. My response rate was too small to use standard statistical techniques such as to truly analyze the data with regression and correlation. I sent out 277 e-mails announcing my questionnaire and got 17 answers back. Therefore I decided to tabulate the answers and elaborate a result in an empirical way. In addition, a section with listed policies and practices will be included in this paper for later reference by others.

These questions were evaluated the following way:

- **the category to which the organization belongs (e.g. education)**
  Determination if a difference between educational and other organizations exists in the formulation and enforcement of their policy

- **the country where the organization headquarters is located**
  The relation between the ISPs policy and practices and the country in which the organization is located was not evaluated as the amount of answers was too small

- **organization name (optional)**
- **contact person (optional)**
- **a checkbox if they wish to receive the URL of the finished paper**
- **a checkbox where they can give me the permission to mention the organization by name in my survey**
- **an inputfield where they can specify other surveys in the same field as this one**
  Administrative information with no influence on the results.

- **what kind of services do you provide**
  Only providers with approximately the same services were compared. Answers from organizations which do not offer full Internet access are discussed in a special section.
• how many Internet service subscribers does your organization have
   As the response rate was relatively low, I chose not to subdivide responding ISPs into
categories based on size.

• indicate your primary customers
   An Internet Service Provider can have individual customers (endusers) as primary
subscribers, or it can provide services to large organizations who control access by
themselves. I compare the policies of ISPs which provide access to private/individual users
in the main section and discuss the other cases in a separate paragraph.

• do you have a written, approved Information Policy for your service
   Determination if a written policy exists which was approved by the provider's management.

• if not, do you have an informal Information Policy
   Does some rules exist which clarify what is acceptable use of their service?

• is your Information Policy available on-line to your customers
   Can a subscriber verify the policy while accessing the Internet if something is not clear to
him/her?

• do your customers have to indicate that they will accept your policy at the beginning of
the contract
   Do they know what their restrictions are?

• points covered by the Information Policy
   Allows me to determine if a general content of a policy exists and whether the policy is
formulated in a specific way or if it refers to the general "nettiquette". I also want to
determine if the passed communication bill with respect of "making pornography accessible
to minors" had an impact on the policy.

• do you monitor the traffic of your customers
   Indicates if the Internet Service Provider can detect policy violations itself or if it has to
rely on other sources.

• when do you take actions if your policy has been violated
   Does the ISP react immediately when complaints are brought to its attention or does the
ISP investigate the violation by itself.

• what are your actions
   Is the access to the Internet terminated immediately, or does the ISP make contact with the
subscriber and discusses the incident.
• do you have a list of individuals to whom you do not want to provide access
• if yes, do you share this list with other Internet Service Providers
  Does the ISP keep a list of users with whom problems have occurred in the past and
  therefore wishes to provide no access in the future.

• indicate your assumption of how often violations of your policy happen in relation to
  your total customers
  Gives an estimation how often violations are reported and actions are taken. A comparison
  between educational and commercial organizations will be provided.

4 Results
In this section, the results are shown for each evaluated question in a separate subsection. The
results are tabulated and interpreted accordingly. The main section discusses the results of the
Internet Service Providers which are providing full Internet Access (including WWW access) to
their customers. All other categories are discussed in the second section of this paragraph.

Important note:
Not all the possible answers are fully described in this section. Please refer to Appendix 1 to
review the possible answers

4.1 Results for ISP which provide full (WWW) Internet access

4.1.1 Availability of the Information policy
Question:
  Do you have a written, approved information Policy for your service?

Answers:

<table>
<thead>
<tr>
<th>Category</th>
<th>Yes</th>
<th>No</th>
<th>Yes in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>commercial</td>
<td>5</td>
<td>1</td>
<td>83</td>
</tr>
<tr>
<td>educational</td>
<td>4</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>government</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>2</td>
<td>82</td>
</tr>
</tbody>
</table>

Question:
  If not, do you have an informal Information Policy?

Answers:
  All the organization which do not have a written policy stated that they have an informal
  policy.
Question:

*Is your Information Policy available on-line to your customers?*

Answers:

<table>
<thead>
<tr>
<th>Category</th>
<th>Yes</th>
<th>No</th>
<th>Yes in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>commercial</td>
<td>2</td>
<td>4</td>
<td>33</td>
</tr>
<tr>
<td>educational</td>
<td>2</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>government</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>7</td>
<td>36</td>
</tr>
</tbody>
</table>

Question:

*Do your customers have to indicate that they will accept your Information Policy at the beginning of the contract?*

Answers:

<table>
<thead>
<tr>
<th>Category</th>
<th>Yes</th>
<th>No</th>
<th>Yes in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>commercial</td>
<td>6</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>educational</td>
<td>3</td>
<td>1</td>
<td>75</td>
</tr>
<tr>
<td>government</td>
<td>1</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>1</td>
<td>90</td>
</tr>
</tbody>
</table>

Discussion:

Most of the Internet Service Providers have a written Information Policy. There is no significant difference between educational and commercial organizations. A minority of all ISPs have their policy on-line available for their customers.

The vast majority of the service subscribers have to agree in advance to a "acceptable use policy" before they can use a service. Note that all commercial subscribers had to indicate that they will accept the ISPs information policy. However, responses to the previous questions indicate that only 5 of the six commercial organizations have a written policy and further, only 2 of the six provide that policy on-line. It is not clear how a user can accept a policy which is not written. I resolved this ambiguity in the following way, although alternative explanations are possible: In the case of a customer having to agree to an Information Policy where no written policy seems to exist, a "general use agreement" or a global formulation of acceptable use is defined but the system administrator of this service did not consider this as an "Information policy".
4.1.2 Content of the Information policy

**Question:**

*Which of the following points are covered by your Information Policy?*

**Answers:**

The category "government" is only included in the total % yes answers as only one answer was in this category.

<table>
<thead>
<tr>
<th>subject</th>
<th>commercial</th>
<th></th>
<th></th>
<th>educational</th>
<th></th>
<th></th>
<th>total % yes (including government)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>yes</td>
<td>no</td>
<td>% yes</td>
<td>yes</td>
<td>no</td>
<td>% yes</td>
<td></td>
</tr>
<tr>
<td>harassing/threatening</td>
<td>3</td>
<td>3</td>
<td>50</td>
<td>3</td>
<td>1</td>
<td>75</td>
<td>64</td>
</tr>
<tr>
<td>chain mails</td>
<td>2</td>
<td>4</td>
<td>33</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>mailbombing</td>
<td>3</td>
<td>3</td>
<td>50</td>
<td>1</td>
<td>3</td>
<td>25</td>
<td>36</td>
</tr>
<tr>
<td>alter soft- hardware</td>
<td>4</td>
<td>2</td>
<td>66</td>
<td>4</td>
<td>0</td>
<td>100</td>
<td>82</td>
</tr>
<tr>
<td>accessing other accounts..</td>
<td>3</td>
<td>3</td>
<td>50</td>
<td>4</td>
<td>0</td>
<td>100</td>
<td>73</td>
</tr>
<tr>
<td>misrepresenting identity</td>
<td>1</td>
<td>5</td>
<td>17</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>pornography accessible to minors</td>
<td>1</td>
<td>5</td>
<td>17</td>
<td>2</td>
<td>2</td>
<td>50</td>
<td>36</td>
</tr>
<tr>
<td>invasive software</td>
<td>3</td>
<td>3</td>
<td>50</td>
<td>3</td>
<td>1</td>
<td>75</td>
<td>64</td>
</tr>
<tr>
<td>violation of laws</td>
<td>6</td>
<td>0</td>
<td>100</td>
<td>2</td>
<td>2</td>
<td>50</td>
<td>73</td>
</tr>
<tr>
<td>general &quot;nettiquette&quot;</td>
<td>4</td>
<td>2</td>
<td>66</td>
<td>2</td>
<td>2</td>
<td>50</td>
<td>55</td>
</tr>
<tr>
<td>other</td>
<td>1</td>
<td>5</td>
<td>17</td>
<td>1</td>
<td>3</td>
<td>25</td>
<td>18</td>
</tr>
</tbody>
</table>

**Discussion:**

It appears that there exists no global or at least widely used content for an Information Policy. There is also not a significant difference between the policies of educational or commercial organizations. My hypothesis that educational organizations have a less severe policy could not be confirmed. In fact, it seems that educational tend to have more specific policies.

The subjects that are most widely mentioned in the policies are technical, such as altering hard or software or accessing other accounts.

The passed telecommunication bill did not have an influence on the policies (survey taken at the beginning of April 96) as the question of "making pornography accessible to minors" indicates.
4.1.3 monitoring traffic

Question:

*Do you monitor the traffic of your customers? This includes random or partial monitoring.*

Answers and discussion:

All organizations except two (one commercial and one government) claimed that they did not monitor the traffic of their customers. This brings to me the conclusion that the Internet Service Provider cannot determine by itself if its customers are violating their policy. Instead they have to rely on external reports that a user has violated the "nettiquette".

4.1.4 Actions after Information Policy violations

Question:

*When do you take actions if your policy has been violated?*

Answers:

<table>
<thead>
<tr>
<th>when are actions taken?</th>
<th>commercial</th>
<th>educational</th>
<th>government</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
</tr>
<tr>
<td>after own approval</td>
<td>2</td>
<td>33</td>
<td>4</td>
<td>100</td>
</tr>
<tr>
<td>after 1 or 2 complaints</td>
<td>2</td>
<td>33</td>
<td>4</td>
<td>100</td>
</tr>
<tr>
<td>after 1 point violated</td>
<td>1</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>requested by authorities</td>
<td>1</td>
<td>17</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Discussion:

All the educational and governmental service providers and 33% of the commercial providers take actions only after they verified the violation by themselves (after a possible complaint). A fraction of the commercial providers (33%) react after one or two complaints, possibly without their own verification of the violation. One service provider takes actions when one point of the policy is violated regardless how they became aware of the violation, and one provider takes any action only if it is requested by the authorities.
Question:
What are your (possible) actions if someone was violating your Information Policy?

Answers:

<table>
<thead>
<tr>
<th>what are possible actions? (more than one possible)</th>
<th>commercial</th>
<th>educational</th>
<th>government</th>
<th>total %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
</tr>
<tr>
<td>no action</td>
<td>1</td>
<td>17</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>monitor for approval</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>educational discussion</td>
<td>3</td>
<td>50</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>warning user</td>
<td>6</td>
<td>100</td>
<td>4</td>
<td>100</td>
</tr>
<tr>
<td>revoke account</td>
<td>6</td>
<td>100</td>
<td>4</td>
<td>100</td>
</tr>
<tr>
<td>report to authorities</td>
<td>2</td>
<td>33</td>
<td>1</td>
<td>25</td>
</tr>
</tbody>
</table>

Discussion:
Almost all organizations (except one) always take action if a policy violation occurs. Only 25% of the educational and the surveyed governmental organizations monitor the traffic of the suspected user for approval. The majority of the ISPs have an "educational discussion" with the user in which the Information Policy is explained. All the surveyed Internet Service Providers warn the user that continued violation will result in revoking the account; all are willing to revoke the account if the violations don't stop. Only 25% of all organizations are willing to report a violation to the authorities.

4.1.5 Blacklists - denial of access

Question:
- Do you have a list of individuals to whom you do not want to provide access? (Blacklist)
- If yes, do you share this list with other Internet Service Providers?

Answers:
No Internet Service Provider responding the questionnaire had a list of individuals to whom no access would be provided should that person apply for the service. This was the most astonishing survey result for me, as I strongly suspected that after a previous violation of an ISPs policy which resulted in a revocation of the account this individual would no longer be provided access. I interpret this situation this way the competing market for Internet Service Providers is too strong to seriously consider such a policy.
4.1.6 Amount of policy violation

Question:

*If you had any violations of your policy by your subscribers, please indicate your assumption how often this happens in relation to your total customers.*

Answers:

The answers represent % customers who were violating the ISPs policy

<table>
<thead>
<tr>
<th>category</th>
<th>lowest answer</th>
<th>highest answer</th>
<th>not answered</th>
<th>Average %</th>
</tr>
</thead>
<tbody>
<tr>
<td>commercial</td>
<td>0</td>
<td>1</td>
<td>1 of 6</td>
<td>0.34</td>
</tr>
<tr>
<td>educational</td>
<td>0.15</td>
<td>2</td>
<td>2 of 4</td>
<td>1.1</td>
</tr>
<tr>
<td>government</td>
<td></td>
<td></td>
<td>1 of 1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>2</td>
<td></td>
<td>0.55</td>
</tr>
</tbody>
</table>

Discussion:

Except for one educational organization, all answers were at or below 1%. This means that on average, one out of approximately two hundred users (0.55%) is known to violate the Information policy of an ISP.

The results also show that only a small fraction of all violations are brought to the attention of the service provider. I cannot believe that an ISP with many thousands of customers can have no violations of its policy at all. Therefore, I believe that the real amount of violations is much higher than known.

4.2 Results of ISPs which provide access to big/professional - and media customers

In this section, the policies of organizations which provide access to big/professional (like IBM) or media customers is discussed. These providers in general do not have contact to the endusers but provide services to another organization which then provides service directly to individuals. Therefore, the questions about their policy has to be viewed in a different angle as an organization in between has to take care of policy violations.

Nevertheless, 3 out of 4 of this type of organization have a written Information Policy. The "typical" policy contains not a list of simple entries like mailbombing etc., but instead concentrates on technical points (not altering hard- software for example) and the link to the general "nettiquette". Almost all policies are focused on system and network administrators and not on users.

If a violation of their policy is detected, the typical reaction among these organizations is to review the case themselves before any action is taken. If the violation is confirmed, an educational discussion and/or warning for the user is the next step. No organization stated that they would revoke an account of one of their customers because of policy violations. As their customers are
not individuals but organizations with policies of their own, the need for an action like this is not very likely.

The amount of violations is small (between 0.001% and 0.01% except for one answer with 1%) and therefore not a big concern to the ISP.

4.3 Special cases
The two organizations that answered my questionnaire which have not been discussed yet do not provide full access to the Internet. One offers access to an internal government network based on the WWW principles but does not offer access to the Internet. The other organization offers no access to the WWW but does provide e-mail and news services. Both have a limited danger of "nettiquette" violations and it is not surprising that both organizations do not have a written Information Policy.

5 On-line available policies of Internet Service Providers
This section provides a brief description of a few Policies or Codes of Conduct of Internet Service Providers.

George Washington University
http://www.gwu.edu/~circta/help/code_of_conduct.html

Code of Conduct for Users of Computing Systems
More a code of conduct than an actual Information Policy. It describes how the resources can be accessed in an acceptable way. Users are expected to apply standards of normal academic and professional ethics and considerate conduct in economical use of all GW computing systems and resources. In addition, users are expected to be aware that their use of the University computing systems is subject to all applicable University regulations, BITNET and Internet regulations, and federal, local, and international laws.

A general description of what is acceptable in using the University's resources with a few case studies of what is not acceptable. A more specific section of not acceptable use is necessary.
University of Chicago
http://www.uchicago.edu/uoc/comp.polrep.html#policies

Policies (and related guidelines)
The University of Chicago has in my eyes the best policy available on-line of all documents described in this section. It contains 5 sections:
• Policy on Information Technology Resources
• Policy Guidelines for Publishing Networked Information (rev 14 Aug 94)
• Network Etiquette
• BITNET Acceptable Use Policy
• Bill of Rights and Responsibilities for Electronic Learners
All areas (local and Internet) are covered in an understandable way. There may be even too much information provided, making it possible for the average user to become lost and unable to find a specific point in the documents.

University of Maryland at College Park
http://www.inform.umd.edu:8080/CompRes/PolicyAndEthics/acceptable-policy

Acceptable Use Policy
Short, not very specific policy. Uploaded after the incident concerning one of their students [5] [6]. Contains:
• violations of rules or codes set by services subscribed to by the Computer Science Center
However, it does not provide any information regarding what is acceptable and what is not.

Georgia Institute of Technology
http://www.gatech.edu/itis/policy/usage/

Computer and Network usage Policy
A good example of a local usage policy with the sections:
• Background and purpose
• Definitions
• Individual privileges
• Individual responsibilities
• Georgia Tech privileges
• Georgia Tech responsibilities
• Procedures and sanctions
However, the policy applies in general to the local Network and not to the Internet. No Internet policy or code of conduct is implemented
**Library of Congress**

http://lcweb.loc.gov/global/internet/inet-policy.html

**Internet Policies**
A great resource for general Internet Policies from the US and other countries. Have a look at the good "Acceptable Use Policy" and the "Nettiquette" section.

**ESnet** (funded by the Department of Energy (DOE))
http://www.es.net/hypertext/esnet-aup.html

**Acceptable Use Policy**
Good example of a quite small policy. You will find the following entries:
- General Guidelines
- Acceptable Use Examples
- Unacceptable Use Examples
- Enforcement and Violations
- Modifications
All sections describe briefly the policy of ESnet and give practical examples.

**Wyoming.com**
http://www.wyoming.com/aup.html

**Acceptable Use Policy**
Wyoming.com is a commercial organization dedicated to improving business, educational, and individual opportunities via the Internet for residents of Wyoming. Their policy is short and easy to read and covers most of the important points. However, a link to more specific explanations would be helpful.
6 Conclusions

Policy issues are still a problem in today's world of the Internet. However, as the WWW becomes more commercial and looses its educational roots. Large numbers of inexperienced individuals are using the Internet. The effect of this has been increased violations of the "nettiquette" rules. This may arise out of ignorance (they don't know the rules) or arrogance (they simply do not care). In both cases, the Internet Service Provider should have the responsibility to provide necessary information to the subscribers and to enforce the policy. The majority of the Internet service providers have at least an implicit Information policy concerning acceptable use of their service for their client's. Now, they have to formulate this in a more explicit way and make this information available to the users. All ISPs should publish their guidelines on-line if it is not already available.

Policies need to be explicit. Tradition and word-of-mouth fail to carry any legal consequence. Existing Acceptable Use Policies are often too generic. Although most of these provide good general guidelines, they do not deal with specific circumstances. I found that Netiquette Guides are good for beginning users, but may not necessarily address behavior problems of the more knowledgeable such as experienced Internet user [8].

We should create a general Information Policy as to my knowledge nothing like this. Such a policy would include how to conduct oneself on the Internet in relation to today's situation. This policy should be written in a simple way with links to more explicit explanations and examples. If a policy like this were to exist and be widely accepted, the individual Internet Service Providers would only need to provide an additional chapter on their personal needs.
7 Recommendations - or Spamming and Flaming, how to take a survey on the Internet

To get a significant amount of relevant answers, I targeted all the known Information Service Providers worldwide. I extracted a list of 277 e-mail addresses, mainly from the Internet Society's Web server. After putting the addresses together, I wrote an e-mail message in which I described my project and the URL where the questionnaire could be found. To avoid the critique of unsolicited mail, I signed the message with my PGP signature.

Although I did not have the intention of describing how the Service Policy of the George Washington University works, I received two complaints and three comments about my mail. One or several from the mentioned messages were also sent to the system administrator or GWU. My message was interpreted in this case as "spamming". The received messages are included in Appendix 5.

After receiving a message from a GWU system administrator, informing me that I violated the policy of the University, I reviewed more exactly this policy. Although spamming is not described in the policy, there is mentioned the general "nettiquette". The paragraph applicable to this situation is:

"In addition, users are expected to be aware that their use of the University computing systems is subject to all applicable University regulations, BITNET and Internet regulations, and federal, local, and international laws." [7].

One of the problems with policies formulated in this way is that everybody interprets the policy in a different way (see also Intel [8]). I interpret spamming in relation to e-mail ("officially" it is used for newsgroup crossposting) in the following way:

"Sending unsolicited junk mass e-mail to an indifferent list of recipients"

As I sent my mail only to postmasters and did not consider my mail as "junk", I felt myself to be on the safe side. Instead, I received two complaints that I was spamming them (this is 0.72% out of 277). After this, I received a message from a system administrator of The George Washington University which described my inappropriate behavior and the consequences of not changing it. From my point of view as a former system administrator, I believe that this letter and the reaction of The George Washington University is largely inappropriate, as my behavior was not random spamming. Rather than argue the case, however, I have changed my own understanding of spamming and will use a different approach in any future Internet survey.

The question still unanswered is how to target a large enough audience for a survey over the Internet. The best possibility is to post the question in an appropriate newsgroup. Unfortunately, I cannot say that this was a successful approach in my case. I received only one response that I believe to be a response to my posting on the newsgroup. Another possible way that I can think of, is to send a message about the survey to each person of the targeted audience and not creating a list. This has the effect that the ugly To: header with all the recipients does not appear in the message. Unfortunately, this is also considered as spamming as the result is the same. It may be less offensive but is also considered an even more "illegal" form of unsolicited e-mail as it is not
clear at first that this is an unsolicited message to a larger number of recipients. The only proper way is posting in newsgroups and hoping that the people who are reading it are not too busy and are eager to answer. Possibly a survey about a less sensitive issue and addressed to less "technical" people (policy questions are often looked as "not necessary" by engineers) will provide more feedback. In addition, the questionnaire could be designed in a different way. If someone accessed my page, he/she could look over all questions and decide at the last moment to submit all of them or not. If a questionnaire were to take every question as a separate input, the number of answers could be larger as each completed question would already have been stored in case the person decides that the questions are getting too sensitive and stops answering them. A partly filled out questionnaire is better than none.
8 References

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9 Appendices

1. Questionnaire
2. Source code for the questionnaire
3. Source code for the CGI script
4. Mail that I sent to Internet service providers
5. Comments and complaints according my e-mail
6. Transparency masters