

Impact on Society Report

Team Name

Student1, Student2, Student3

Date

Project abstract (uncomment \LaTeX input{../abstract})

Contents

1	Intellectual Property	2
1.1	Copyright	2
1.2	Patent	3
1.3	Trademark	3
1.4	Trade Secrets	3
1.5	Export Controls	3
1.6	End User License Agreement or Terms of Service	3
2	Privacy	4
3	Industry Standards, Regulations, Norms	4
4	Professional Ethics (PEO)	5
5	Society	5
6	Environment	5

Instructions: Comment on the legal, social, ethical, and environmental aspects of your projects, as applicable. For most projects legal is the main issue, and in most cases software licences (*i.e.*, copyright) is the primary concern.

Your goal here is to demonstrate awareness of the issues. You are not a lawyer, and you do not need to provide a legal judgement: if there are grey areas then you can just say that a legal opinion should be sought on the matter.

\LaTeX Instructions:

- Edit main.tex
- Do not rename main.tex
- Set your text editor to use plain ASCII — not UNICODE. The most common problem here is ‘smart quotes’.
- Ampersand is a special character in \LaTeX that must be escaped with a preceding backslash.
- Use the URL macro to wrap URLs
- main.tex will not build on its own — it reads in your meta.tex file. So if you copy just main.tex into an online \LaTeX system, it won’t build properly. You need to build it on your local machine (if you want to build it at all).

1 Intellectual Property

‘Intellectual property’ is a recent term used to refer to four historically distinct sets of laws: patent, copyright, trademark, and trade secrets.¹

University of Waterloo Policy 73² is unique in that it allows you to retain ownership of all of the intellectual property that you create at school. Very few (if any) other schools have such a policy: usually the university claims ownership of all intellectual material created as part of university business. This policy gives you tremendous freedom and makes writing this report much simpler.

1.1 Copyright

Copyright is the branch of law most commonly associated with software, as software is written work. Copyright is the legal basis of all open-source software licences. You should be able to answer the following questions:

- What are the licenses attached to the software you are using?
TODO
- Are the pieces of software that you are using license compatible with each other?
TODO
- What license options are available for your project? If you are linking with GPL software then your project must be GPL, *etc.*
TODO
- What license are you choosing for your project? Why?
TODO
- Does your project involve, or appear to involve, sharing or capture of third party data? Third party data should be understood broadly, including at least recorded music or movies, Google maps data, Yelp local business data, *etc.*.. What are the terms of service/usage for the data?
TODO
- Does your project involve analysis of third-party datasets? Who owns the copyright of them? What is the licence?
TODO
- Who will retain ownership of the copyrights on your software after you graduate? You? Your customer? Someone else?
TODO

¹ Richard M. Stallman. Did You Say ‘Intellectual Property’? It’s a Seductive Mirage, 2012. URL <http://www.gnu.org/philosophy/not-ipr.html>. First version circa 2004

² University of Waterloo. Policy 73: Intellectual Property Rights, 2000. URL <http://secretariat.uwaterloo.ca/Policies/policy73.htm>

According to Policy 73 UW does retain ownership of final exams by classifying them as a faculty administrative task rather than as product of teaching.

GPL compatibility is discussed on the GNU web site. There are many other online resources on this topic.

<http://www.gnu.org/licenses/quick-guide-gplv3.html>

<http://www.gnu.org/licenses/license-list.html>

Please provide appropriate references for your claims, *e.g.*:

<http://www.softwarefreedom.org/resources/2007/>

[gpl-non-gpl-collaboration.html](http://www.gnu.org/licenses/gpl-non-gpl-collaboration.html)

<http://www.apache.org/licenses/GPL-compatibility.html>

There is a rich legal history on this topic that you could briefly reference, *e.g.*, Napster, Morpheus, MegaUpload, *etc.*

1.2 *Patent*

- Is there patentable material in your project? Have you applied? Are you applying?

TODO

- Is the software that you are using patent encumbered in certain countries? Does this restrict the ability to redistribute your software?

TODO

For example, many CODECS are patent encumbered in most of the developed world, and hence do not ship with many GNU/Linux distributions.

1.3 *Trademark*

TODO

1.4 *Trade Secrets*

TODO

1.5 *Export Controls*

In some countries, such as the United States, some technologies, such as cryptography, are restricted by export controls. For example, this is why OpenSSH and OpenBSD are developed in Canada.. If technology used in your project is subject to export or import controls in Canada, the United States, or the United Kingdom, please discuss.

TODO

<http://www.openbsd.org/crypto.html>

1.6 *End User License Agreement or Terms of Service*

If your project requires an End User License Agreement or a Terms of Service agreement, please provide and discuss it here.

TODO

There are some online tools for generating these, such as TermsFeed.com

2 Privacy

- Jurisdiction: Where will your software be run? Where will its users be? Which jurisdictions should be considered?

TODO

- Canada: *Personal Information Protection and Electronic Documents Act (PIPEDA)*.

TODO

- USA: *Health Insurance Portability and Accountability Act (HIPAA)*

TODO

- Europe: *Data Protection Directive*

TODO

Some provinces, such as Ontario, Quebec, Alberta, and British Columbia, have their own privacy legislation. This provincial legislation largely mirrors the federal legislation but is not identical, and in some cases the differences might count.

3 Industry Standards, Regulations, Norms

TODO: Identify and briefly discuss relevant industry standards, regulations, and norms that are relevant to your project. Some pointers to potentially relevant information below. Please delete those that are not relevant to your project, and expand those that are — plus, of course, add other relevant items not on this list.

- Avionics: DO-178C
- Medical Devices: ISO 13485, ISO 13488, GD211
- Security: Common Criteria
- Internet: IETF (Internet Engineering Task Force standards)
- Web: W3C (World Wide Web Consortium)
- CAP Theorem
- Language standards: SQL, C, Java, *etc.*
- Google Material Design UI/UX Standard
- Apple Design UI/UX Standard

4 *Professional Ethics (PEO)*

- Duty to society.

TODO

- Duty to employer.

TODO

- Duty to employees.

TODO

- Duty to colleagues.

TODO

- Duty to clients.

TODO

- Duty to the engineering profession.

TODO

- Duty to self.

TODO

http://www1.peo.on.ca/Ethics/code_of_ethics.html

5 *Society*

How does your project (potentially) impact society? You should consider a wide range of factors, including but not limited to: employment, education, economics, healthcare, equity, diversity, inequality, *etc.* Engineering is often about trade-offs. In many cases (but not all), some things improve at the cost of other things. Provide references as appropriate.

TODO

6 *Environment*

How does your project (potentially) impact the environment (if at all)? Provide references as appropriate.

TODO