

Intellectual Property Guidelines for Graduate Coursework in the Biomedical Communications Program

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Biomedical communications is an inherently collaborative discipline. As professionals, biomedical communicators typically work with clients who supply the medical or scientific content to be visualized. In preparing to enter the profession, Biomedical Communications (BMC) graduate students work with content advisors who provide and/or verify the scientific or medical subject-matter of the students' coursework and their Master's Research Projects (MRPs). This collaboration with content experts (clinicians, researchers, and others) happens in addition to the usual graduate-student collaboration with an academic supervisor.

The intent of this document is to provide guidelines for early discussion of the roles and responsibilities of everyone involved in such collaborations, and of intellectual property issues relevant to biomedical communications research. It extends also to members of MRP supervisory committees. It brings together applicable information from University of Toronto policies as well as recommendations based on the unique experience of BMC faculty and graduate students.

Summary

1. BMC graduate students produce novel media objects as part of their coursework and MRPs.
2. Faculty (and research partner) content advisors who assist BMC graduate students in the development of their coursework and MRPs can expect to be able to use student-produced media objects for the purpose of non-profit education or research dissemination. This could include, for instance, publication on a departmental or hospital web site.
3. The BMC graduate program requests the right to use a student's coursework and MRP as examples of student scholarship and for the purpose of program promotion.
4. In line with standard University of Toronto policies, BMC graduate students own and have discretion over the intellectual property (IP) rights of the media objects they produce as part of their coursework and MRPs. These rights apply whether or not a student receives funding support from the content advisor.
5. Further potential use of these media objects, including revision, republication, licensing, sale, or alteration, should be discussed between the student and the content advisor early on in the development of the project. Many models exist for the further shared use of original IP that results from a student's coursework or MRP.

Discussion

1. BMC graduate students produce novel media objects as part of their coursework and MRPs.

The Master of Science in Biomedical Communications (MScBMC) differs from many research-based Master's degrees in that students' research is embodied in original *media objects*: illustrations, animated films, websites or web-based animations, physical models, booklets or other forms of visual resource. Even BMC students who elect to conduct and write up an empirical evaluation as part of their MRP will do so in addition to creating a media object as an essential part of the research process. In some cases, these media objects are conceived from the outset as prototypes: exercises to demonstrate and evaluate innovative design or communication strategies. In other cases, the media objects may be conceived with specific real-world venues in mind: instructional resources for undergraduate classrooms, patient-education materials for clinical groups, visualizations of current research for presentation at conferences, and so on.

2. Faculty (and research partner) content advisors who assist BMC graduate students in the development of their coursework and MRPs can expect to be able to use student-produced media objects for the purpose of non-profit education or research dissemination. This could include, for instance, publication on a departmental or hospital web site.

Usually, content advisors participate in the development of student coursework or MRPs on the understanding that they will be able to make use of the resulting visual media objects for educational purposes or research dissemination. In such situations, everyone involved must come to an understanding about the student's intellectual property rights in the product of his or her visual research, and about the benefits due to the content expert in return for an often considerable contribution of time and expertise. When these issues are discussed at the beginning of a project, it can save misunderstandings later on and ensure that the collaboration is mutually rewarding.

BMC coursework and MRPs are extremely varied. No single template can suit every scenario. We hope that BMC faculty, BMC students and their content advisors, using this document as a guide and prompt, can anticipate IP issues that may arise and can shape an agreement that will give all parties maximum benefit from what can be a rich and fulfilling collaboration.

3. The BMC graduate program requests the right to use a student's coursework and MRP as examples of student scholarship and for the purpose of program promotion.

The exceptional quality of the work produced by BMC graduate students is a powerful tool for recruiting applicants and showcasing the program's unique value. It is expected that students will allow BMC to reproduce and present their work in this context. The student will always be given name credit.

4. In line with standard University of Toronto policies, BMC graduate students own and have discretion over the intellectual property (IP) rights of the media objects they produce as part of their coursework and MRPs. These rights apply whether or not a student receives funding support from the content advisor.

The following four documents convey the fundamentals of copyright in Canada, and the application of those principles within the research culture of the University:

- i. From the Government of Canada: Canadian Copyright Act (1985) available at <<http://laws.justice.gc.ca/eng/C-42/index.html>>
- ii. From UofT Governing Council: "Copyright Policy" (2007) available at <<http://www.governingcouncil.utoronto.ca/policies/copyright.htm>>

- iii. From SGS: “Intellectual Property Guidelines for Graduate Students and Supervisors at the University of Toronto” (2007) downloadable from <<http://www.sgs.utoronto.ca/currentstudents/Pages/Intellectual-Property-Guidelines.aspx>>
- iv. From UTM Research Office: “Intellectual Property Guide” available at <<http://www.utm.utoronto.ca/vp-research/information-researchers/intellectual-property-guide/ip-policies-utm>>

Here are key definitions and observations from these documents that apply most directly to BMC coursework and MRPs:

- **Copyright** (as opposed to patent) is the form of intellectual property most relevant to the MScBMC context, since students’ media objects, research papers and posters are expressions of an idea.
- The UofT School of Graduate Studies’ guidelines state that “under the Copyright Policy, a graduate student would normally retain copyright in works that he or she creates, with two exceptions. The University holds copyright in works created in the course of the student’s employment by the University or which are otherwise commissioned by the University under a written agreement with the student.”
- IP rights in a student’s written thesis vest with the student. By analogy, the same situation applies to the media objects created in the course of a BMC graduate student’s research.
- UTM’s intellectual property guide states that students “are expected to give appropriate recognition to those who make a genuine intellectual contribution to the research product.” In the MScBMC context, this guideline applies to credits attached to the media object as well as to written publications/posters about the student’s coursework or MRP. The student will be first author on papers/posters created in the course of the MScBMC program, and is expected to list the content advisors and BMC faculty involved as co-authors.
- In some cases, coursework or an MRP may originate as, or develop into, part of an ongoing suite of animations, web modules, etc., for a research lab or clinical program. In these cases there may be useful analogies with other disciplines where graduate students’ academic work is part of a larger research program. SGS guidelines note that “it should be expected that [graduate students’] results can be used, with appropriate attribution, in furthering the research activities of the supervisor and others working in the same laboratory or research group”. If coursework or an MRP fall into this category, it is important that the student, BMC faculty, and content advisor discuss and agree on how related IP issues will be handled.
- In some, perhaps rare, circumstances, a student’s work may be patentable—in other words, it constitutes an invention which is novel and useful. This kind of innovation falls under a different intellectual property regime, and is beyond the scope of this document.

Funding: Students in the MScBMC program do not automatically receive funding. Some students do apply successfully for external scholarships; some are funded through grants held by their faculty supervisor or content advisor; and others complete the program with no financial support. The following notes will help to guide discussion of IP rights in cases where a student does receive financial support of some kind.

- A student’s IP rights, as outlined above, apply whether or not the student receives funding support from the content advisor.
- Most federal granting bodies (CIHR, NSERC, SSHRC) do not attach IP claims to their funding. Companies, foundations, agencies or other granting bodies might. A student and his or her advisors must understand the IP implications of whatever external funding the project may have.
- Sometimes, external funding bodies (especially industry) may attach rights of first refusal and/or publication embargoes (usually lasting ~six months) as a condition of funding, in order that they may review the research for its IP implications.

5. Further potential use of these media objects, including revision, republication, licensing, sale, or alteration, should be discussed between the student and the content advisor early on in the development of the project. Many models exist for the further shared use of original IP that results from a student's coursework or MRP.

What follow are guidelines specific to the MScBMC context. We have prepared these guidelines as an aid to ongoing conversations among students, their instructors or supervisors, and the experts with whom they collaborate. In the case of coursework, assignment instructions usually define project parameters and outcomes quite closely. MRP,s on the other hand, can evolve considerably over the course of their development. Sometimes they develop in unforeseen directions; sometimes new opportunities or applications emerge. At the outset of the project, all parties should try to anticipate the outcome as clearly as possible and agree on the broad outlines. At the same time, they should be prepared to remain flexible and expect to revisit, rework and refine their agreement on IP issues as the project evolves.

- All parties should agree on project objectives relating to how complete the media object will be at the conclusion of the course or, in the case of the MRP, the graduate program. In many cases, it will be a working prototype rather than a fully complete media object ready for public presentation.
- All parties should discuss what will happen if the media object fulfills agreed-upon project objectives but still requires revision or further work if the content advisor wishes to make it available for wider use (such as on an institutional website or as part of course curriculum) after the course or graduate program ends.
 - One possibility, for example, is that all parties agree on a post-program hourly rate for such revisions, and the student makes the necessary revisions for payment.
 - Another possibility is that the student have right of first refusal if the content advisor wants to pay for further work on the project. If the student cannot, for whatever reason, maintain the project at that point, the content advisor may open the job up to other freelancers. The student would continue to receive name credit on the media object.
 - Note that these kinds of decisions will also involve discussion about what elements of the media object will be given to the content advisor at the conclusion of the project. For example, will the content advisor be given all preparatory files (e.g. individual visual assets, raw program files), or published files only?
- In some cases, there may be licensing options that will allow the content advisor to make use of the media object for educational, non-profit purposes while allowing the student to retain ownership and have discretion over further, unforeseen uses of or potential revisions to the media object.
- If there is the possibility of any revenue being generated by use of the media object, this should also be discussed in detail at the outset of the project, or as soon as the possibility arises. (See UofT Governing Council's copyright policy for information on revenue sharing.)