Noranda Earth Sciences Library
User Experience Research Project — UX Recommendations

1. Maintain Patron-Defined Positive Qualities of Noranda

Priority Critical

Recommendation Ensure maintenance of core positive qualities of Noranda (*e.g.* quiet atmosphere, bright natural light, comfortable and welcoming space).

Rationale The aforementioned qualities are what students consistently noted as their reasons for selecting Noranda as their study space of choice. Thus, these qualities are key to a positive user experience, which enables students' productive work and ensures their repeated patronage. Students simultaneously expressed high regard and positivity for the library for these qualities, as well as concern about their disruption.

Therefore, it is critical that any changes do not significantly detract from what patrons generally consider to facilitate a positive user experience at Noranda.

Relevant Data All interview transcript data and surveys.

2. Increase Availability of Power Bars/Electrical Outlets

Priority Critical

Recommendation Loan power cords for in-library use only.

Rationale Most students visiting the library come before or after class, study for extended periods of time, and use their personal laptops, tablets, or mobile phones in order to access library materials and personal academic work. At Noranda, research participants expressed frustration about a lack of power outlets on the first floor, causing their study sessions to be disrupted or cut short.

In order to ensure uninterrupted studying, students need a guaranteed power source for their technology. While power outlets are available in the individual study carrels on the second floor, they are unavailable on all but one table on the first floor. A low-cost solution as suggested by a participant, would be to install power bars along the periphery of the reading room:

> *"This problem can be solved with 3 extensions cords, a power strip and some tape. Give me the money and I'll go buy them." (P30)*

However, power cords are not only costly, but were previously investigated and considered a tripping hazard by the U of T Library Health & Safety Committee.

As such, we recommend considering power cords for loan—a cost-effective solution given existing financial and administrative concerns. While this does not solve the lack of outlets near study areas on the first floor, it would increase the overall availability of outlets, and thus facilitate a more positive experience at Noranda.

Relevant Data 10/14 interview participants indicated a need for additional power outlets on the first floor.

3. Extend Opening Hours

Priority   Moderate

Recommendation   Consider a pilot period of extended weekday hours until 10pm, and opening hours on the weekend.

Rationale   Students strongly preferred Noranda over other libraries as a space of productive study. However, the atypical hours on Friday evening (closing at 6pm), and lack of available hours on the weekend, meant that students were not always able to use the library when it was most convenient for them. One student noted that the hours on Fridays or weekends meant they often frequented other libraries on campus despite their preference for Noranda. Given the financial and administrative implications concerning library and cleaning staff availability, we recommend a pilot period of extended hours and/or weekend hours to help determine whether it's worth continuing or not. However, a lack of extended hours would likely not deter patrons from attending the library when it is open.

Relevant Data   8/14 interview participants requested extended opening hours. 3/14 specified 10pm.[1]

4. Implement Navigation and Wayfinding Signage in Visible Locations

Priority   Moderate

Recommendation   Reassess available signage both outside and inside of the building leading to the library, and signage indicating the location of amenities such as the bathroom and water fountain.

Rationale   While many students agreed that navigating the library itself was not difficult, it was frequently mentioned that locating Noranda was challenging the first time.

> *"There should be more signs—especially outside. I wouldn't have known to come into this building. But I was lucky—I had the time and didn't mind wandering around." (P12)*

Furthermore, some participants expressed confusion concerning the location of the nearest bathrooms, and one indicated they were unaware of the water fountain. These challenges detract from the overall user experience at Noranda—especially for new patrons. Some participants also suggested that existing signage is ineffective, remarking in post-interview discussions that they never noticed the hanging signs such as "Reading Room" and "Reference Section".

While recognizing that the library does not control signage outside the building—we recommend continuing to lobby for improved signage in order to reduce wayfinding challenges experienced by patrons. Additionally, consider reassessing signage inside the library and conduct additional iterative UX testing on navigational aids/signage (e.g. testing the effectiveness of signage prototypes).

Relevant Data   7/14 interview participants experienced difficulties locating Noranda. 1/14 interview participants were unaware of the nearest washroom. 1/14 interview participants were unaware of the water fountain.

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[1] Data concerning travel distance to Noranda was not collected. Thus, it is possible that the participants requesting additional hours live near or on campus—and as such, may not be fully representative of the average patron.

5. Add Soundproofed Group Study Rooms

Priority Moderate

Recommendation Implement bookable study rooms with soundproof walls or sound insulation, separate from designated quiet study areas.

Reasoning Currently, Noranda's design encourages individual study, and given the strict noise policy, students have mentioned they feel uncomfortable talking with others in the Reading Room. However, group projects and thus, group work, are a central component of academic work and so students must go to other libraries for accommodation.

The addition of bookable group study spaces could increase the use of the space, and encourage patronage. However, it is vital that this is only considered if the library can guarantee the continued quiet and scholarly atmosphere. Increased noise could drive students *away* from Noranda; participants mentioned that between group study spaces and a quiet environment, they would prioritize the latter.

> *"There are times when I think it would be nice to have a group study space but it would ruin the acoustics and there are other places on campus for that." (P30)*

As such, while we recommend adding group study spaces, it is equally (or more) important that these spaces are designed and situated in a way that reduces noise and away from individual study spaces.

Relevant Data 4/14 participants requested more individual study carrels.
7/14 interview participants indicated a need for group study rooms.

6. Update Physical Surroundings

Priority Low

Recommendation Add live plants and a fresh coat of paint.

Reasoning When asked what other recommendations or ideas could improve the overall user experience at Noranda, one participant suggested that new paint and carpeting would enhance the library's comfortable atmosphere and aesthetics. However, given that the carpeting was only changed 18 months ago, we only recommend considering a fresh coat of paint. Furthermore, many participants expressed that they enjoyed the open, rounded dome space of the reading room, with its natural lighting. Along this theme, 2/14 interview participants suggested adding live plants:

> *"Plants would fit with the theme of the library really nicely. They would boost morale, especially in the dead of winter." (P12)*

While not critical, these suggestions would improve the general qualities that make studying in Noranda a positive user experience: a comfortable, welcoming, and aesthetically pleasing study space.

Relevant Data 2/14 interview participants requested live plants.
15/18 comments concerning existing furniture (chairs, tables, and lights) were *positive*; no changes are recommended at this time.

7. Downsize Reference Section

Priority	Low
Recommendation	Reduce the size of or convert materials from the reference section for regular circulation to free up space for other purposes.
Reasoning	Most participants reported that they do not use the reference material. Among those that did discuss using it, they reported using only a limited section, and using it infrequently. Reducing or removing the reference section by converting material for regular circulation could provide increased space for other purposes, such as a group study room, that may be more beneficial for patrons.
	As these have considerably low use, this will not affect patrons negatively, and can free up space for other purposes—such as group study areas—which could have a stronger impact on the user experience at Noranda.
Relevant Data	Only 2/32 survey participants and 2/14 interview participants reported making use of reference materials.

8. Downsize Library Stacks

Priority	Low
Recommendation	Maintain, but downsize general collection by discarding or sending low-circulation items to the UTL @ Downsview storage facility if additional space is needed.
Reasoning	Despite the popularity of online resources (19/32 survey participants), many patrons were against the removal of the print collection. Some participants mentioned using the print materials for coursework, and one noted using them to explore personal topics of interest.

> *"There's a whole section on soils which may sound boring but I find it interesting. It's outside my coursework and it fuels my interest and passion…There's a serendipity of discovering books in a library which is something you wouldn't get otherwise." (P30)*

	Another participant noted that reading print material allows her to focus better compared to an electronic version. On the other hand, 7/14 participants noted that they enjoy making use of the books and the environment that books create, as it encourages studying.
	Regardless, as online resources are more widely used, it would not negatively impact the user experience if the collection is partially downsized if space is required for other purposes.[2]
Relevant Data	19/32 survey participants and 7/14 interview participants make use or prefer online resources over print material. 7/14 interview participants expressed enjoyment from using the books or the environment created by having books nearby.

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[2] However, we would advise against removing a significant portion, as patrons continue to use and enjoy the stacks, or consider it crucial in facilitating an effective studying environment.

9. Reassess Signage for Technologies, Printing Options, & Software

Priority   Low

Recommendation   Maintain existing computer workstations. Improve instructional signage for troubleshooting printer problems. Investigate wireless printing options and software beneficial to student academic success.

Reasoning   Participants are generally satisfied with the number of computers at the library, and the fact that on average, in comparison to other libraries, computers are readily available. However, one student mentioned that additional software (e.g. GIS and RStudio) on the computers would be beneficial to the completion of coursework related to earth sciences. While our research did not evaluate—and therefore does not suggest—the use and benefits of specific software for the average patron, this has potential to benefit the overall user experience, and warrants further exploration in a future study.

Printing services and help offered at Noranda are considered well maintained by users. One participant recalled an incident where they experienced an issue with their TCard payment while printing notes in a rush, and praised the front desk for providing timely help without incurring additional charges. Another appreciated that printers are located near the front desk so that help is nearby if necessary.

While technology issues are infrequent, placing signage with clear layouts and plain language in visible areas can proactively address any concerns or inform patrons of where to go to request help. Furthermore, only one computer outside of the printing area is currently designated for printing—but it may provide a better user experience if that computer is moved next to the printer or if remote printing (from personal devices) can be enabled.

Relevant Data   9/32 survey participants answered "Somewhat Agree" and 9/32 answered "Strongly Agree" when given the prompt "There are enough computers".
1/14 interviews requested additional software on computers.
2/14 reported having previous issues with printing.

10. Washrooms

Priority Low

Recommendation Consider using existing lockers on the second floor above the Reading Room to allow students to store belongings safely when they want to use the washroom.

Reasoning Participants frequently expressed frustration over how distant the nearest washrooms to Noranda are, specifically as it required them to pack up belongings (or risk having items stolen) and potentially lose their study spot when stepping out for a bathroom break.

> *"I leave the library entirely if I need to go to the washroom…I don't like to leave my stuff unattended." (P31)*

As a long-term solution—a new washroom on the same floor—would be expensive and financially unfeasible, we suggest an economical alternative that would still effectively improve the user experience at Noranda: making use of existing lockers near the library, or install a small bank of temporary lockers (such as those offered in many recreational centres). With these lockers, users would be able to store their belongings securely when needing to exit the library for brief breaks, by taking the key with them.

Another solution—suggested by two unique participants—is to provide students with a way to safely store their belongings with library staff. This would also alleviate the frustration users have regarding the distance to the washrooms, as it provides a secure and quick way to temporarily store belongings. However, this solution would pose liability issues, and is therefore not recommended.

Relevant Data 5/14 interview participants expressed frustration that washrooms are too far from the library.
4/14 were discontent with needing to pack up their belongings to use the washroom when studying alone.

11. Replace the Water Fountain

Priority Low

Recommendation Replace the fountain with a water bottle refilling station.

Reasoning Participants noted a lack of power/water pressure from the existing water fountain, causing them to be unable to refill water bottles.

> *"The water fountain could also be better. I wish it had more power.*
> *"[It feels like] it's on its last legs." (P3)*

As such, we recommend replacing the water fountain with a water bottle refilling station. Not only is it important for there to be uniformity amongst facilities at the university, but a water bottle refilling station is also more hygienic than water fountains. Furthermore, it would be suitable for the Earth Sciences Library to promote the use of an environmentally sustainable water bottle refilling station. A theme-appropriate feature would be a model that informs the user of the number of plastic water bottles saved from waste by using the station.

Relevant Data 3/14 interview participants expressed frustration with previous experiences with the water fountain.