

Dawson Makerspace Development

on behalf of



Project Report

Submitted by



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Executive Summary

The development of a 'Dawson Makerspace' continued through the fall and winter of 2019/20 with support from the Klondike Development Organization. The purpose was principally to:

- Seek formal *Agreements in Principle* with the main institutions; outlining conditions for use of these government funded workshops and spaces.
- Identify and support a formal group in Dawson that could initially lead the makerspace initiative.
- Further the partnership with YuKconstruct to determine how best it can assist Dawson in this development.
- Prepare an application to funders (particularly the Community Development Fund) for a pilot makerspace project, including a Coordinator position to develop and manage programming.

The project was successful in achieving its objectives, while advancing additional initiatives. Yukon College Dawson Campus, Robert Service School and the Yukon School of Visual Arts confirmed support by permitting formal and conditional access to their workshops and computer equipment and spaces. The Industrial Arts and Technology Society of Yukon (IATSY) will, in the interim, be the host organisation and assist Dawson Makerspace development and funding applications. Public meetings and discussions identified a group of community institutions and organisations willing to create and manage a registered Dawson Makerspace society and charity in due course.

Mechatronics Dawson was created for individuals who had potential interest in electronics, computer coding and small scale mechanical engineering. The group first met early March at Yukon College. There are no membership fees and the College 'Hub' was made available free of charge.

A funding application was drafted and submitted to the Community Development Fund under the auspices of IATSY, with a supplementary submission to the City's Community Development Fund pending. It is acknowledged third-party funding is, and will remain, critical to the project's success.

Productive meetings and discussions with YuKconstruct and Yukon College Innovations and Entrepreneurship highlighted a willingness to work together and support our Dawson initiatives. In particular there is potential for both these parties to assist with making use of skills and experience, helping with funding, facilitate borrowing and sharing equipment, helping access to instructors and workshops and programs (local or from outside) and assisting with joint programming in Dawson.

The project was completed amidst the current COVID-19 crisis. The impacts to health and the community are expected to continue well into 2021. Aside from the effects on the community, the restrictions on gatherings and closing of facilities will inevitably delay the start of a Dawson Makerspace pilot project. Nonetheless, indications are community and wider support for a Dawson Makerspace will remain strong and a Dawson Makerspace will be an invaluable component to recovery and progress.

1. Background

A feasibility study into the potential for a 'Makerspace' in the community was initially commissioned by the Klondike Development Organisation as part the wider Regional Economic Development Plan. Research and consultation for that project began in early February 2018 and was completed at the end of March. Consultation took two forms. Individuals' preferences were appraised to gauge interest and possible levels of participation. An online survey was the principle mechanism, coupled with social media coverage, informal discussions and a public meeting. Prospective community, government and institution partners were identified, with discussions centred on the potential for formal partnerships and capacity building. Public support and demand was considerable, with levels of community organization interest equally apparent.

Locations suitable to host makerspace facilities were investigated, including existing buildings in current use, properties with intermittent use, vacant or derelict properties and vacant lots. It was noted that not only did the community benefit from a number of appropriate buildings, but the majority currently hosted facilities and equipment common to makerspaces; or were planning to develop workshops and studios in the near future. As the investigations continued, it became apparent that the stand-alone facility model most commonly utilized by makerspaces may not be the most appropriate option in the initial stages; and a makerspace umbrella society to oversee activities at multiple locations may serve the community better. These two options were recommended to be pursued.

There remained some questions whether interest would translate into membership purchases or that demand is as high as research has indicated. However, given the continuing enthusiasm for a facility and examining the experiences of YuKonstruct, Whitehorse's successful makerspace, there was sufficient evidence to support a pilot project. This will be an opportunity to better gauge interest over a 12 to 18 month period, and seek to identify best practices and areas for enrichment and improvement.

Although the means to develop the project further were not immediately available, informal discussions continued throughout the community, and with partners, for the remainder of 2018 and into 2019. Social media remained in place to provide updates, and a group of community members purchased a used 3D printer from YuKonstruct intended to be available for community use.

2. Project development and proposals

2.1 Makerspace Facilities and Partnership Agreements Facilitation

Dawson Makerspace feasibility work noted that “Taking advantage of levels of capacity and facilities that already exist, it would seem appropriate to utilise multiple locations under the umbrella of a Dawson Makerspace, rather than creating or developing an additional and independent facility. This is not the normal operating model for makerspaces in general, but it is a practical and efficient means to bring a makerspace to the community. Many of the potential hosts have indicated a willingness to participate and negotiate formal partnerships and/or user agreements for mutual benefit.”

Yukon College, Robert Service School, Yukon School of Visual Arts and Tr'ondëk Hwëch'in have confirmed a willingness in supporting local 'makers' by permitting access to their workshops, studios and computer equipment and spaces. The next step identified was that formal 'Agreements in Principle' (AIP) or Memorandums of Understanding must be put in place to outline the conditions for access and use of these government funded spaces.

One aspect to be finalised related to who the Agreements in Principle would actually be with; which type of formal registered body would a Dawson Makerspace be? A registered non-profit society (and charity) was recommended as the most appropriate way forward, however it was not feasible at this stage for registration to be completed. The Industrial Arts and Technology of Yukon Society (IATSY) subsequently offered to be the host body in the interim and the AIPs will initially be signed under the auspices of this group. More information can be found in the following **The Dawson Makerspace organisation** section.

With discussions continuing over the past 18 months, Yukon College and Yukon School of Visual Arts have signed or intend to sign *Agreements in Principle*. Robert Service School has an existing Memorandum of Understanding with Yukon College for use of school facilities. It has indicated that, with the college as a partner, Dawson Makerspace use of school facilities would be approved under the college's existing terms and conditions of access. Tr'ondëk Hwëch'in facilities currently remain under development and refurbishment and as such are not currently available.

Thus, to date Dawson Makerspace has conditional access to:

- Yukon College's computer lab, digital media infrastructure and classroom space. In addition, the central 'Hub' has more recently been identified as a prime location for multipurpose use.
- SOVA's specially commissioned 2D and 3D studios, a lecture room, and audio-visual lab. Other facilities include a gallery and library, in addition to an arts supply store.
- Robert Service School has two existing workshops (woodworking and metal) and a drafting classroom, and has recently refurbished a welding facility.

All the aforementioned facilities are relatively well stocked with equipment and tools; although some additional tools may be needed and materials supply will be the responsibility of Dawson Makerspace members and facility users.

It is worth reiterating that availability remains an issue. Hosts will have periods of core use when facilities and access are not available to a makerspace. Thus a certain degree of pragmatism will be necessary. It is hoped that, with makerspace user demand outside of normal office and institutional hours, that conflicts can be kept to a minimum.

2.2 The Dawson Makerspace organisation

The exact form and nature of a Dawson Makerspace governance body remained open following the feasibility study. A number of options were investigated and recommendations made. Many makerspaces are non-profit societies (or part of not-for-profit groups) with a board of directors, and daily operations overseen by paid staff and/or volunteers. The non-profit model sits well with makerspace philosophies and usually has access to a wider range of government funds and initiatives than the private sector. A Dawson Makerspace society is also likely to garner greater community support than any private commercial venture. Dawson City is home to a considerable number of societies and NGOs and board member and volunteer burnout is common. Despite this, the advantages of a makerspace not-for-profit society and current levels of enthusiastic community support, indicate a registered society is the most appropriate way forward.

In addition, it was suggested registering as a charitable organisation would allow the society to better and more effectively embrace and encourage charitable donations. Changing status after a society is originally registered has proved problematic for some local organisations, thus registering during the initial stages is recommended.

It is not feasible for Dawson Makerspace to be formally registered at this stage. In the interim, and to assist with initial Dawson Makerspace development and funding applications, the Industrial Arts and Technology Society of the Yukon (IATSY) has offered to be host organisation. The mission of IATSY is to develop, promote, and advocate for industrial arts and technology in the Yukon Territory. The society develops industrial arts and technology through education, and the creation and facilitation of skill building opportunities for Yukoners, including but not limited to: maker spaces, tool libraries, hosting workshops, conducting formal and informal training, and mentoring. It has a mandate to ensure industrial arts are equally represented as the visual arts and digital media. Thus, it would seem an ideal partner in a makerspace project and had been identified as such. IATSY has confirmed it has the standing and sufficient capacity to continue as host until Dawson Makerspace becomes a formal entity.

2.3 Board and governance model

Recent public meetings held in February 2020 further discussed the nature and governance of a non-profit society. Ideally, a Dawson Makerspace board would include partner organisations and utilise their existing employees. In particular, ongoing discussions with Conservation Klondike Society, Dawson City Community Library, Industrial Arts and Technology Society of the Yukon, Klondike Institute of Arts and

Culture, Robert Service School, (S)hiver Arts Society, Tr'ondëk Hwëch'in, Yukon College and Yukon School of Visual Arts have indicated continued support for the project and a potential to become Dawson Makerspace board member organisations. These institutions and groups could utilise their resources, and help spread the burden and workload, particularly at the critical initial stages. Room should be left on the board for independent community representation. There would need to be commonality among organisation vision and mandates to be workable. Board organisation such as KIAC and/or KDO could help provide initial administrative support.

It was noted, and overwhelmingly supported, that a Society Coordinator would be necessary to administer the society and, most importantly, to coordinate and manage activities at the various facilities.

Work is currently under way to:

- Identify which organisations will be approached to become formal board members
- Create and initiate a Dawson Makerspace board of directors
- Take steps to formally register Dawson Makerspace as a society and charity
- Investigate funding options for the provision of a Society Coordinator

2.4 Partnership developments

A considerable list of local governments, institutions and community organisations indicated support for a Dawson Makerspace during the feasibility study and showed a willingness to develop a formal partnership with a makerspace society or organisation.

Two avenues in particular were researched in recent months; with YuKonstruct and Yukon College Innovation and Entrepreneurship.

2.4.1 YuKonstruct: YuKonstruct (YK) is the Whitehorse non-profit makerspace society which “empowers Yukoners to bring their ideas to life in a creative, innovative community” and provides access to communal space, quality resources, shared knowledge and a collaborative environment that helps entrepreneurs and makers. Its strategic goals include improving financial stability, developing and documented clear processes for its main activities, development of its physical spaces, programming development and enhancing its internal community to enhance its contribute to the broader Yukon community to which it belongs. YuKonstruct indicated during the feasibility study that it was investigating potential to expand its operations and expertise in to the communities. The society remains willing to partner with a Dawson Makerspace and share its experiences and expertise in the short to medium term. It provided a great deal of information and advice as part of this feasibility study.

Further talks were undertaken during through emails and meetings with the YK Executive Director in February about how Dawson can connect with their expertise and programs and, which types of partnership and support YK is able to provide. In particular, it was suggested to YK it could assist with: making use of skills and experience, helping with funding, facilitate borrowing and sharing equipment,

helping access instructors and workshops and programs (local or from outside) and assist with joint programming in Dawson. In addition, it was suggested YK could help with obtaining or supporting funding a Dawson coordinator position.

In addition to useful general advice, YuKonstruct's Executive Director indicated it can help formulate a partnership and assist, particularly utilising YK's experiences, access to funders, and help with training and developing and training a Coordinator position. A Dawson Makerspace can learn from the early years of YK, in particular financing and economics during development. YK training and workshops could be held in Dawson and be available online.

2.4.2 Yukon College Innovation and Entrepreneurship: Innovation & Entrepreneurship (I&E) at Yukon College provides entrepreneurs with access to a wide range of supports critical to bringing their ideas to life, such as funding for developing and testing prototypes, intellectual property protection and product scaling and commercialization. It "empowers innovators and entrepreneurs to realize their full potential by enabling the most advantageous resources, expertise, space and funding".

While Yukon College Dawson campus has been incredibly supportive of Dawson Makerspace development, involvement and support from the wider organisation has been limited. Research and discussions indicated its Innovation & Entrepreneurship branch may be the best option involvement and potential partnership. Discussion with Lauren Manekin Beille, Manager Innovation & Entrepreneurship during February noted highlighted that while E&I can provide support to local businesses and will investigate more local involvement, it could provide entrepreneurial support to a Dawson Makerspace and its members and may be interested in helping develop/utilise shared office space. E&I may not be perceived as a 'good fit' as such with a Dawson Makerspace, however there is some potential for a partnership as the society, programming and output develops.

2.5 Mechatronics group

A meeting at Robert Service School in the fall brought together some 'like-minded' individuals who had potential interest in electronics, computer coding and mechanical tinkering; in what's known as mechatronics. While nothing concrete developed at that time, a proposal was put forward in February 2020 to create a vehicle that connects like-minded individuals in Dawson with one another. While such things can easily be done virtually through the internet, real social interaction between humans can often yield benefits greater than the sum of the parts. Thus Mechatronics Dawson was created.

The intention was to have a place and opportunity to meet, learn and collaborate and discover what similar projects others in Dawson are working on. The group provides opportunities to present projects and inventions; while members can benefit from learning about other project that may have applications to others.

The group first met early March at Yukon College. There is no membership fees and the College 'Hub' was made available free of charge. The first meeting was unfortunately the last before the COVID-19 crisis stopped public gatherings and closed the college. The group members were however enthusiastic

about continuing and growing the group in future – and it is likely to become a of mainstay of a Dawson Makerspace.

2.6 Dawson Makerspace pilot project

Continuing community interest and commitments from local organisations and residents justifies further Dawson Makerspace project development. A pilot project may be the most appropriate and realistic option. A full 18 month project can provide annual, seasonal and even monthly outcomes and statistics on which to determine future plans. A minimum year-long period has been encouraged by the Yukon Government Economic Development branch, as the best means to fully assess potential and on which to best make decisions of future funding. We appreciate funding beyond 12 months may not be feasible, given current funding cycles. In such cases a year-long project would suffice.

Initial indications were that the summer months are normally busy periods for residents, with little time for the more creative activities. In addition, some of the key hosts may not be in a position to partner until the start of the fall term. Notwithstanding, a pilot season should include the summer months. This could be undertaken at the start of the project, when demand may be lower, and thus the potential work load lessened; or as a continuation from the fall and winter by which juncture demand may be established. Both course of action have benefits. The preference was to perhaps start with available options as soon as feasible and use the quieter summer period to develop programming and memberships in preparation for the busy fall season.

The forthcoming (and attached) application for funding to the Community Development Fund stems from recommendations from the Feasibility Study and subsequent project development funding from KDO. This first phase of pilot project development intends to “test a model for a makerspace that mobilizes existing resources through effective coordination, to leverage and access tools and spaces that would otherwise be financially out of reach for individuals and create opportunities for residents of Dawson to learn, share ideas and skills, make, experiment and build in Dawson City”. A subsequent application will be made to the City of Dawson Community Grant program for supplementary support.

The current COVID-19 crisis may delay the start of the project, likely well into the fall period. The intention is to have programming in place and available at the earliest opportunity, dependent on government guidance of course.

Appendix I

Agreements in principle with:

Yukon College

Yukon School of Visual Arts

Memorandum of Understanding:

Robert Service School and Yukon College