

# **Friends of the Dominion Astrophysical Observatory Society**



**Strategic Plan**

**FY 2019-2021**





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## 1. Introduction

The Board of the Friends of the DAO Society met on February 3rd and 10<sup>th</sup>, 2018 to provide input into this strategic planning document which will guide the organization for the next 3 years. Present were Board members and stakeholders from the community. The sessions were facilitated by a consultant, Steven Jones, with deep experience in strategic planning. Participants were asked to provide opinions about what visitors should both see and feel when they came on site and discussed also what they thought was most important about the observatory and visitors' experiences. The sessions ended with the participants creating a set of goals for the future and a first cut at prioritizing these goals.

This document presents the goals that were selected as high priority. It describes the goals, the current state of the issue identified in each goal, and the desired state. The document outlines a set of steps needed to achieve the desired state and an overall plan.

## 2. A Brief History of the Friends of the DAO

The Friends of the DAO was created after the Government of Canada decided in 2013 to cease funding the public outreach efforts conducted from the Centre of the Universe. This affected all public activities including the Saturday Night public viewing that had taken place almost every year since the Dominion Astrophysical Observatory opened in May 1918. Amongst other activities in protest of this decision an online petition was started by Don Moffatt (now Friends of the DAO Vice-Chair) who had worked in public outreach at the Observatory in the 1990s. The public outcry eventually attracted the attention of NRC officials in Ottawa who came out to visit and listen to the public in the summer of 2013.

Later that year in a meeting of individuals interested both in the restoration of public outreach activities and in the potential of the DAO site for education of students, citizens, and visitors, it was agreed that there was a short-term need to restore public viewing as soon as possible. It was also felt that in the longer term the programs of the Visitors' Centre - particularly for schools - should be restored, and further, that the facility could be developed into an attraction for tourist and local citizens alike.

At the same time the management of the National Research Council (NRC) in Victoria expressed the desire for a citizen organization to be responsible for public outreach activities and suggested that the government would be open to giving a fair amount of autonomy to such an organization, allowing it to undertake activities that were previously constrained by the government-funded public outreach organization.

Eventually in early 2015, after a summer in which the Royal Astronomical Society of Canada opened the observatory to restore the Saturday Night public program and the Science Venture organization of the University of Victoria Engineering Department offered children's camps, efforts were made to restart the activities desired for the 'long term'.



Meetings between DAO personnel and interested members of the public led to the incorporation of the Friends of the DAO in June 2015 with 3 founding board members which grew to 8 by the following summer. In the fall of 2015 the Friends of DAO entered into discussions with the National Research Council which led to the signing of the Licence to Occupy in May 2016. This agreement licensed FDAO to use the Visitors Centre and the Plaskett Dome itself for public outreach purposes. That summer the FDAO took over the running of the Saturday night star parties in partnership with the RASC; started making the facilities available to science outreach groups in Victoria; and conducted several pilot tours for schools and community groups.

### 3. About This Document

This document presents a mission statement; a brief history of the Society; and a set of aspirational statements which were extracted from the Society's original statement of purposes. It then presents the goals identified at the meetings mentioned above that were given high priority. Priority was partly based on need and partly on feasibility. In the Appendix other identified goals are listed. These goals have lower priority, however are still part of the overall strategic plan and will be addressed as opportunities arise.

### 4. Mission Statement

The Friends of the Dominion Astrophysical Observatory inspires visitors of all ages by expanding their understanding of their place in the universe, and making Canada's historic Dominion Astrophysical Observatory and the Centre of the Universe sites of learning, creativity, and community for all.

### 5. Aspirations

The Friends of the DAO aspires to promote the following concepts and actions:

- Awareness of the Canadian Dominion Astrophysical Observatory (DAO), and of astronomy and related science, technology, engineering and mathematics;
- Public Access to the Dominion Astrophysical Observatory including its Visitors' Centre, *The Centre of the Universe*;
- Science literacy through evidence-based approach to natural phenomena;
- Fellowship and the exchange of information between individuals and organizations who have a common interest in astronomy and related sciences;
- Enhancement of interest in astronomy and related sciences in groups underrepresented and underserved in the sciences such as girls and women, Indigenous individuals and First Nations communities, and persons with disabilities;
- Working partnerships for science outreach with
  - community organizations, businesses and government
  - universities, museums, non-profit organizations, and private foundations



- the local arts community.

## 6. Goals

The goals outlined in this document fall under 3 major themes – governance, organizational development, and programming — that together aim to 1) expand opportunities for students, residents and visitors to visit the DAO and an enhanced Centre of the Universe, and 2) develop a sustainable organization to promote science outreach and education into the future.

These are the goals that were identified as highest priorities in the meetings, and therefore execution of the strategic plan focuses in the first place on achieving these. For each objective within the three headings, a sponsor, being either a board member or a committed volunteer is responsible for leading the effort. That individual will create a plan with the assistance of the officers of the society to execute the objective. For items that require funding they will seek approval from the board for use of existing budget line items or seek amendments to the budget as necessary.

Other goals that were identified in the meetings are considered secondary. The intention is not to disallow any attempts to accomplish these goals but instead to act upon them on a more opportunistic basis. A good example is business partnerships. These may arise based on unplanned contacts from businesses in town who have decided to get in touch with FDAO for their own reasons; clearly the board will act in the best interests of the society to exploit such opportunities if and when they arise. A second example is in the goal of enhancing the user experience at the CU. In this case opportunities such as the VR equipment provided by the NRC in the summer of 2018 was certainly a welcome step toward this goal.

Depending on the progress of the organization to deliver on the prioritized goals the intention is to take up some of these secondary goals as time and budget permits. Potentially the largest initiative that the group identified lie in updating the CU displays (“storytelling” and “user experience” goals); these are likely to require significant funding, and therefore were not prioritized partly for practical reasons.



6.1. Governance

**GOAL: FDAO will exemplify excellence in its governance**

Strategy	Current State	Future State	Sponsor	Target Date
<b>6.1.1 Develop a protocol for board nominations</b>	There is currently no explicit protocol to nominate individuals to the Board of Directors. Offers are made to interested persons based on interview with board chair and officers.	FDAO has a systematic way of recruiting new board members to strengthen the current board's ability to maintain the society and to add expertise, connections, and experience in areas identified as needed by the organization.	Don Moffatt	March 2019
<b>6.1.2 Develop a succession plan</b>	There is currently no succession plan in place. Current Society officers are term-limited in 2020, requiring further commitment by Officers and bylaw amendments to allow them to remain and/or an intentional approach to recruiting new Officers and staggering Board member terms.	FDAO is a sustainable organization that identifies and trains its future leadership ready to take over when the current leadership steps down. <ul style="list-style-type: none"> <li>• Future Officers of the society are identified for some period not less than XXX months before current officers are due to step down.</li> <li>• The chair of the organization is identified and undergoes a period of training before taking office.</li> </ul>	Catriona Johnson	Spring 2020
<b>6.1.3 Improve governance practices</b>	FDAO is in its development phase and currently has a "working board" due to a lack of full-time paid staff. The Board has some policy (i.e. Conflict of Interest) but practices typically evolve organically. Due its current developmental stage, there has been limited opportunity to assess systematically and improve its governance practices.	The FDAO has Board policies in place to govern its practices and reviews these policies on a regular basis.	Catriona Johnson and Nelson Walker	2019
<b>6.1.4 Increase</b>	The FDAO currently has X paid memberships and	FDAO will have an increased number of members supported by membership policies and procedures	Amy	2019



Strategy	Current State	Future State	Sponsor	Target Date
<p><b>organizational membership and engagement</b></p>	<p>a database of X individuals. Membership policies and procedures have not been firmly developed, though research on similar organizations and broad recommendations have been presented to and approved by the Board. These recommendations have yet to be formalized and implemented.</p>	<p>that:</p> <ul style="list-style-type: none"> <li>• Defines membership</li> <li>• Assign costs and benefits to membership</li> <li>• Allows for easy membership acquisition and renewal</li> <li>• Encourages membership for children and youth and individuals from groups underrepresented in the sciences.</li> </ul>	<p>Archer</p>	





## 6.2. Organizational Development

### GOAL: FDAO WILL GROW AND IMPROVE ITS ORGANIZATIONAL INFRASTRUCTURE

Strategy	Current State	Future State	Sponsor	Target Date
<b>6.2.1 Maintain and evolve the License to Occupy the facilities at the Observatory</b>	<p>FDAO benefits heavily from the License To Occupy agreement with the NRC. The 3-year agreement was signed in May 2016 and so is up for renegotiation in FY2019:</p> <ul style="list-style-type: none"> <li>• There are currently limits on FDAO board members and employees in acting under Volunteer Visitor Status to operate the telescope.</li> <li>• A small number of persons allowed on the hill on behalf of FDAO without prior consent, technically means consent is required to hold activities as small as board meetings.</li> </ul>	<p>FDAO will have a renewed 5-year Licence to Occupy agreement that:</p> <ul style="list-style-type: none"> <li>• Allows for all who pass training to operate the Plaskett Telescope and the 16" Observatory at the Centre of the Universe</li> <li>• Adjusts minimum number of persons allowed for FDAO functions outside of business hours without prior NRC consent upward from 10 to 20</li> <li>• Clarifies naming rights for Centre of the Universe</li> <li>• Other issues</li> </ul>	Ben Dorman	28/2/2019
<b>6.2.2 Develop a volunteer engagement and training program</b>	<p>FDAO has many enthusiastic volunteers but needs to fulfill an ever wider variety of roles particularly on Saturday nights. Volunteers are vital to the organization and its ability to provide public programming. Training opportunities are created approximately bi-annually. A volunteer communication system is used, through signup.com, however there is a need for an intentional plan to engage volunteers.</p>	<p>FDAO has a systematic recruitment, training, communication, and acknowledgement program that improves volunteer recruitment and retention as well as delivering quality experiences to visitors. The program:</p> <ol style="list-style-type: none"> <li>includes clearly articulated volunteer role descriptions</li> <li>communicates consistently with volunteers</li> <li>keeps records of volunteer skills and also of contact events</li> </ol>	Amy Archer	Rough draft June 2019



		<p>d) recruits a wide range of volunteers of all ages and with diverse skill sets</p> <p>e) develops standardized and recurring training opportunities</p>		
<b>6.2.3 Develop policies for volunteers</b>	<p>FDAO relies on volunteers for staffing Saturday night activities and observatory tours. There is no explicit policy regarding volunteers and approximately bi-annual training for volunteers. There is no documentation provided formally about expected activities or conduct.</p>	<p>FDAO volunteers are properly oriented, trained, meet reasonable guidelines concerning behaviour in public and towards observatory visitors. FDAO appropriately appreciates its volunteers and:</p> <p>a) acknowledges volunteers' efforts</p> <p>b) retains volunteers in a measurable way</p>	Don Moffatt	April 2019
<b>6.2.4 Develop a Stock and Merchandise Plan for the Gift Store</b>	<p>FDAO operates the gift store in the CU building whenever possible when the site is open to the public. Currently the Board has allocated a budget at the beginning of the summer for new stock purchases and ordering merchandising materials has started however a long-term vision and plan for the gift store have not been developed.</p>	<p>The FDAO has a gift store that augments the education and public outreach goals of the organization and generates increasing income for the organization's science education and outreach activities.</p> <ul style="list-style-type: none"> <li>• The gift store inventory is replenished with suitable materials in a systematic way to attract purchases.</li> <li>• A stock and merchandise plan address the restocking of inventory including branded merchandise.</li> </ul>	Amy Archer	February 2109
<b>6.2.5 Develop a fundraising and grant plan</b>	<p>The FDAO has received several grants and donations to support educational programming however grant-writing has been opportunistic and limited due to the time it has taken to gain charity status. Likewise, FDAO has held an annual fundraiser over each of the last 3 years</p>	<p>The FDAO has a strategic fundraising and grant plan in order to support other strategic priorities. By 2021, the FDAO has a part-time employee with dedicated time to research available grant offerings using available technology, creates a calendar for submissions, and asks for assistance to appropriate resources (e.g. educators, astronomers) within the</p>	Catriona Johnson	2021



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	that have been successful yet dependent on a small group of volunteer organizers.	organization.		
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6.3. Programming

**GOAL: FDAO will expand and enhance its outreach and education programming**

Strategy	Current State	Future State	Sponsor	Target Date
<p><b>6.3.1 Develop a Science Organization Engagement Plan</b></p>	<p>FDAO has partnered with the NRC, the RASC, Science Venture and the Royal BC Museum, and the FIRST Robotics organization for a number of activities at its events. Science Venture in particular has held camps at the CU and may do so again in future. The Canada-Hawaii France Telescope (CFHT) and the East Asia Observatory have been supportive of FDAO efforts. Outreach to local schools and to public and private schools across the country is taking place as part of the CAN-Yes project, but it is not currently designed as a permanent program to support organizational relationships.</p>	<p>As a science outreach organization which is a peer to other such entities in North America, including science museums and observatory public outreach departments, FDAO is a full member or participant in associations such as the Canadian Association of Science Centres, the BC Science Teachers Association, and the Association of Science Technology Centers based in the US. FDAO supports the education of students and teachers at the local, provincial and national levels.</p>	<p>Lauri Roche</p>	<p>2020</p>
<p><b>6.3.2 Develop a Media Outreach Plan</b></p>	<p>There are no fully developed communications plans for FDAO initiatives. Any activities that require communications components are developed ad hoc. There is no clear chain of responsibility for determining outreach opportunities. FDAO has a list of media contacts, but it needs to be updated.</p>	<p>FDAO identifies and develops communications plans for all initiatives that require internal and/or external outreach. Each plan outlines the goal, objectives, strategies, tactics and people responsible for each component.</p>	<p>Jesse Grigor Board liaisons - Don Moffatt and Ben Dorman</p>	<p>March 2019</p>



Strategy	Current State	Future State	Sponsor	Target Date
	<p>FDAO also utilizes Facebook, but sometimes it does not give information regarding Society activities in a timely fashion.</p>			
<p><b>6.3.3 Develop an action plan for the 16" telescope</b></p>	<p>The 16' telescope is a popular and important feature of the Centre of the Universe allowing hands-on use of a telescope for viewing planets and stars. It is therefore desirable to keep it well-maintained and enhance its capabilities for public viewing. The 16" observatory has not been upgraded since its building in 2001 and has begun to show its age. The dome motion and exterior shows noticeable corrosion sometimes affecting its motion. The telescope itself lacks electronic guidance and some maintenance is required on the existing drive.</p>	<p>FDAO has in place a stakeholder group that is responsible for overseeing the maintenance and enhancement of the 16" telescope. This group:</p> <ul style="list-style-type: none"> <li>a) Assesses the telescope status and make recommendations,</li> <li>b) determines priorities, feasibility and the cost of recommendations,</li> <li>c) takes steps to upgrade and improves the 16" telescope, related mechanical and facility requirements</li> <li>d) determines ways to fund the telescope improvements.</li> </ul>	<p>Ben Dorman</p>	<p>2021</p>
<p><b>6.3.4 Refine and Redesign the Planetarium Experience</b></p>	<p>The Centre of the Universe Planetarium has the potential to offer unlimited educational experiences to students, groups, and the public. The planetarium is one of the showcase offerings of all public tours. The current software, a 6-year old version of Nightshade Legacy, is no longer</p>	<p>The Planetarium software and hardware is upgraded in order to harness the potential of the planetarium. Programming topics are expanded to provide consistent offerings aligned with BC's education curriculum, astronomy discoveries throughout the world but with a specific focus on Canadian discoveries,</p>	<p>Ben Dorman</p>	<p>2020</p>



Strategy	Current State	Future State	Sponsor	Target Date
	<p>state of the art. All programming in the planetarium is delivered based on manual operation of the software and provides no consistency between operators.</p>	<p>and the history of astronomy among different cultures, etc.</p>		
<p><b>6.3.5 Develop a school and youth engagement program</b></p>	<p>School students have very limited access to the Centre of the Universe despite changes in the BC science curriculum that highlight astronomy education. FDAO accepts request for school tours on a case by case basis dependent on the availability of volunteers to deliver the tours.</p>	<p>FDAO operates:</p> <ol style="list-style-type: none"> <li>1) a school and youth engagement program that provides area classrooms access to educational programming at the Centre of the Universe throughout the school year, and</li> <li>2) a student engagement program that provides interested students with access to astronomy data and opportunities to dialogue with astronomers.</li> </ol> <ul style="list-style-type: none"> <li>• Both programs make astronomy inclusive to youth underrepresented in the sciences (girls, Indigenous youth, youth with disabilities, etc).</li> <li>• The Centre of the Universe is staffed by a roster of employees and volunteers organized by a paid staffer.</li> <li>• FDAO advertises the availability of school tours to school districts in BC as field trip opportunities.</li> <li>• The Centre of the Universe is open for visitors in business hours. Tours for small groups are given by staff on an ad hoc basis: larger groups are accommodated on a fee basis to be determined administratively.</li> </ul>	<p>Don Moffatt and Lauri Roche</p>	<p>2021</p>



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		<ul style="list-style-type: none"><li>• Tours out of hours are accommodated on a fee basis to be determined administratively</li></ul>		



## 7. Appendix

### **Additional Strategies**

The following

1. Develop Partnerships with Downtown Business Community
2. Develop a User Experience Plan<sup>1</sup>
3. Provide Explicit Support for visitor groups
4. Provide a responsive changing series of hands-on activities for visitors<sup>2</sup>
5. Redesign Exhibits to support Storytelling<sup>2</sup>
6. Refine and Redesign the Plaskett Telescope Visitor Experience<sup>1</sup>
7. Develop targeted programming for underserved populations<sup>1</sup>