**Developing Canadian Youth as Leaders and Stewards of the Environment**

**Developed for the Lawson Foundation**
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## 1.0 Introduction

Young people in Canada and the US are spending considerably less time outdoors than previous generations (Gifford & Chen, 2016). In addition, a 2015 study that examined the last 35 years of social change led by young people in Canada, found that only 8% of these engaged young leaders focused their efforts on addressing environmental issues (Ho, Clarke, & Dougherty, 2015).

The Lawson Foundation's work aims to encourage the healthy development of children and youth. As part of this work, the Foundation invests in three interconnected impact areas, one of which is *Youth and the Environment*. The goal of the Lawson Foundation's work in this area is to support young people to connect with nature and become leaders and stewards of the environment.

The Lawson Foundation's 2015 strategic directions document states that "research suggests…developmental opportunities for young people are expanded or diminished by their physical surroundings and their physical, emotional, intellectual and social health are positively affected by contact with nature" (The Lawson Foundation, 2015, p. 5). This statement has further been confirmed by the findings outlined in two systematic reviews commissioned by the Foundation in 2015:
1) Children and Nature: What We Know and What We Do Not by Dr. Robert Gifford and Dr. Angel Chen, University of Victoria; and
2) Children and Nature: A Systemic Review by the Human Environments Analysis Laboratory (HEAL) of Western University.

These two reports also lay out recommendations for policy, practice and future research outlining how best to connect children and youth with nature.

This report aims to build on the reports conducted to date, and further inform the development of the Lawson Foundation's *Youth and the Environment* impact area, by providing the Foundation with background research on:
1) Cognitive development and healthy development for young people 15 to 25 years old;
2) Current and historical context of young Canadians 15 to 25 years old;
3) How young people can be supported to become leaders and stewards of the environment; and
4) The Canadian practitioner and funding landscape in this field, including gaps in support;

This report ends with a series of recommendations that aim to ensure the Foundation can maximize its impact and play a significant leadership role in supporting young Canadians, 15 to 25 years old, to become leaders and stewards of the environment.

This research report was written by Ilona Dougherty and Dr. Amelia Clarke of the Youth and Innovation Project at the University of Waterloo. In order to develop this report the following steps were undertaken in the Spring and Summer of 2017:

- Literature searches for relevant content within the fields of:
  - o Developmental psychology & neuroscience;
  - o History;
  - o Emerging adulthood;
  - o Positive youth development;
  - o Youth engagement;
  - o Market research and polling; and
  - o Environmental education pedagogy;
- Review of the Youth and Innovation Project's original research;
- Interviews were conducted with six Canadian non-profits; for the full list of interviewees see Appendix A and for the list of questions asked see Appendix B. Ethics approval was received from the University of Waterloo for this study.

Throughout this report the terms 'adolescence' and 'emerging adulthood' are used. Both of these terms are used for a few reasons. Some of the sources quoted define adolescence as puberty to 25 years old (Steinberg, 2014) encompassing the age cohort we are discussing. However, not all sources refer to this entire cohort; some only refer to the ages 18 to 25 years of age (Arnett, 2004). Therefore, we use the terms 'adolescence and emerging adulthood' or 'young people' when referring to research that discusses 15 to 25 year olds, and 'emerging adulthood' only when we are referring to research that refers only to those 18 to approximately 25 years old. It is also important to note that the research outlined in this report is primarily from sources that examine the context of young people in Canada and the USA.

## 2.0 Cognitive development and supporting healthy development

This section provides an overview of the most recent research on cognitive development of 15 to 25 year olds as well as discussing the research related to how healthy development in adolescence and emerging adulthood may be supported.

### 2.1 Cognitive development
In order to determine how the healthy development of adolescents and emerging adults might best be supported, it is helpful to start by understanding the cognitive development that takes place during this life stage.

The beginning of adolescence has a clear biological marker; puberty. For a variety of reasons related to both human health and environmental factors, puberty is occurring earlier for young people than ever before, around the age of 10 years old (Steinberg, 2014). This is important in the context of brain

development as the beginning of adolescence also marks the beginning of a time of heightened neuroplasticity "the term scientists use to describe the brain's potential to change through experience" (Steinberg, 2014, p. 9).

This relatively new discovery that adolescence and emerging adulthood is a period of enhanced brain plasticity is of particular relevance, as it positions adolescence and emerging adulthood as a time of life that is equally important as the ages zero to three for healthy human development (Ronald E. Dahl, 2004; Steinberg, 2014). Leading developmental psychologist Laurence Steinberg argues that "the discovery that adolescence is a time of heightened brain plasticity – comparable in many respects to the first few years of life – should radically transform our vision of this period" (Steinberg, 2014, p. 205). He goes on to argue that "we cannot afford to squander this second opportunity to help people be happier, healthier, and more successful. Adolescence [and emerging adulthood] is our last best chance to make a difference" (Steinberg, 2014, p. 217).

By age 15 another important cognitive development has occurred. At that age a young person is capable of adult thinking (Epstein, 2010), reasoning ability is fully developed (Jensen & Ellis Nutt, 2015) as is intelligence (Epstein, 2010). As the well-regarded American psychologist Robert Epstein explains "in fact, *all* of the formal operations…are typically mastered by age fourteen or fifteen. The young teen…is capable of 'experimental and logico-mathematical thinking,' 'philosophical speculation,' 'theory construction' and even analyzing his own thinking" (Epstein, 2010, p. 165). In addition, emerging adulthood is also a time of life where numerous measures of aptitude; verbal aptitude, numerical ability, finger dexterity and clerical perception are reached (Tanner & Arnett, 2009).

However, that at the same time as young people brains are both capable of adult thinking and in a heightened state of neuroplasticity and aptitude, there are some areas of the brain that are not yet fully developed. This is the period in human development where the brain reorganizes the neural network most importantly in the pre-frontal cortex and the limbic system (Steinberg, 2014). The pre-frontal cortex enables our ability to be rational, and the limbic system is responsible for our emotions (Steinberg, 2014). Prospective memory, defined as the ability to remember to do something later does not improve until the 20s (Jensen & Ellis Nutt, 2015), and our ability to multitask is still developing during these years (Jensen & Ellis Nutt, 2015). The amygdala, the part of the brain involved in emotional states, also remains immature during this period of development (Jensen & Ellis Nutt, 2015).

As a result, it is important to understand that although adolescents and emerging adults have the full capacity to think like adults and in fact are more equipped then adults to learn, change through experience (Steinberg, 2014) and to innovate (Dougherty & Clarke, 2017), they are in need of additional support, especially when in situations disrupted by fatigue, stress and emotion (Steinberg,

2014). In circumstances that require what psychologists call 'cold cognition' where "unhurried decision-making and consultation with others" (Steinberg, 2014, p. 202) is possible, the decision-making ability of adolescents "is likely to be as mature as that of adults by age sixteen" (Steinberg, 2014, p. 202). However, in situations where adolescents are stressed, there is time pressure or the potential for coercion, until eighteen or twenty one years of age, a young person's judgment will not be as mature as that of an adult (Steinberg, 2014).

At the same time, it is important to recognize that as Laurence Steinberg argues "there isn't a single age when people become psychologically mature" (Steinberg, 2014, p. 200). Recent developments in neuroscience have also begun to help us understand that the human brain is not static, our brains continue to evolve throughout our lifetime (Driemeyer, Boyke, Gaser, Buchel, & Arne, 2008). If we dismiss the abilities of young people until they reach the age of 25 at which time their pre-frontal cortex and the limbic system is fully developed, we are missing out on unique abilities that young people only possess while they are young. Intellectual ability declines after the age of 24 (Raven, 1948), operational thinking begins its decline in the 20s (Epstein, 2010), as do abilities including reasoning, perceptual speed and spatial orientation (Baltes, Staudinger, & Lindenberger, 1999). Adolescence and emerging adulthood is indeed both a time of exceptional ability and opportunity.

## 2.2 Supporting healthy development in adolescence and emerging adulthood

In a 2014 report titled *Youth who thrive: A review of critical factors and effective programs for 12-25 year olds*, 'thriving', or in other words healthy development in adolescence and emerging adulthood, is defined as "intentional and purposeful optimal youth development across a variety of life domains" (Khanna, MacCormack, Kutsyuruba, McCart, & Freeman, 2014, pp. 6 & 7). The report goes on to explain that for young people to thrive, they must do so in three areas: cognitive/learning, behavioural/social, and psychological/emotional" (Khanna et al., 2014).

Cognitive/learning outcomes are defined as "cognitive-related achievements such as higher achievement test scores, effective learning strategies, and commitment to lifelong learning" (Khanna et al., 2014, p. 10). Behavioural/social outcomes are defined as "success relating to interpersonal exchanges including positive social interactions, community involvement, and assumption of leadership roles" (Khanna et al., 2014, p. 10). Psychological/emotional outcomes are defined as "healthy intrapersonal achievements, for example, healthy self-image, contentedness, and low levels of depression" (Khanna et al., 2014, p. 10).

The *Youth who thrive* report was written in 2014 by Social Program Evaluation Group (SPEG), Queen's University, The Students Commission of Canada and the Centre of Excellence for Youth Engagement and was commissioned by the YMCA of Greater Toronto, United Way Toronto, and the Ontario Ministry of

Children and Youth Services. The methodology for this report included an extensive search of leading academic databases. They identified 257 articles from peer-reviewed, academic sources and 223 articles from recent non- peer-reviewed sources within the period of 2000 to 2013. These articles were reviewed to determine "the critical factors that support youth, ages 12 to 25, through critical life stage transitions and thriving throughout life" (Khanna et al., 2014, p. 2). The report builds on well-recognized positive youth development frameworks; the Search Institute Developmental Assets framework, Five Cs Model and self-determination theory and proposes a new model for healthy youth development which they term the ARC model: autonomy, relatedness, and competence (Khanna et al., 2014).

The *Youth who thrive* report is recent, comprehensive and was conducted by Canadian organizations for use in a Canadian context. As such our report uses the ARC model as a starting point to understand how healthy youth development might be supported. In sections below, more recent research is used to deepen the understanding of autonomy, relatedness, and competence as well as make a case for a fourth key element of healthy youth development: purpose driven impact.

**2.2.1 Autonomy**
Autonomy can be defined as: "having input or voice in determining one's own behavior" (Khanna et al., 2014, p. 41). Ensuring adolescents and emerging adults are given the space and opportunity to become increasingly autonomous is an important factor in ensuring positive outcomes in the domains of cognitive/learning, behavioural/social and psychological/emotional and is associated with long- term well-being (Khanna et al., 2014; Schwartz, Cote, & Arnett, 2005).

Autonomy can be encouraged in a variety of ways, but the research is consistent that whether it be in the home, at school or in the context of a community program, giving adolescents and emerging adults the opportunity to participate in decision-making and leadership is a key in the development of autonomy (Khanna et al., 2014).

Effectively engaging young people in decision-making involves demonstrating a respect for youth voice, adults actively listening to young people, ensuring there is space for youth to contribute on their own terms and making structural improvements to ensure youth voice is consistently heard (Zeldin, 2004). Meaningfully engaging young people in decision-making not only contributes to healthy youth development but has also be shown to contribute to the success of youth programs (Khanna et al., 2014). The importance of engaging young people as decision-makers has also been recognized as a key method of ensuring programming that aims to connect young people with nature is effective (Gifford & Chen, 2016).

It is important to note however that autonomy must be balanced with structure and guidance. This is especially true for young people living in high-risk situations, who are likely to need more guidance and structure and less autonomy (Khanna et al., 2014). "Timing and dosage of opportunities for decision-making is critical" (Khanna et al., 2014, p. 70). In order to understand how to determine how much autonomy is appropriate at which developmental stage throughout adolescence and emerging adulthood the concept of 'scaffolding' is helpful. As developmental psychologist Laurence Steinberg explains "scaffolding entails giving kids slightly more responsibility or autonomy than they're used to - just enough so that they'll feel the benefits if they succeed but not suffer dire consequences should they fail" (Steinberg, 2014, p. 132). While this balance between autonomy and support is crucial, the emphasis must remain on ensuring "the demands we place on our brain exceed the brain's capacity to meet them. The slight mismatch between what we can do and what we push ourselves to do is what stimulates brain development. If the mismatch isn't there, or if it's so great as to be overwhelming, development won't occur" (Steinberg, 2014, p. 35).

### 2.2.2 Relatedness

Relatedness can be defined as "the need to feel belonging and connection with others" (Khanna et al., 2014, p. 49). More specifically for the promotion of healthy development: "supportive relationships, opportunities to belong, and integration among family, schools, and community efforts" (Khanna et al., 2014, p. 49). There is strong evidence for relatedness leading to positive cognitive/learning, behavioural/social, and psychological/emotional outcomes (Khanna et al., 2014).

For healthy development during adolescence and emerging adulthood "unconditional support from adults and allies" (Skinner & French, 2012, p. 6) is needed or in other words "secure and caring attachments…with others" (Khanna et al., 2014, p. 10). As psychologist Robert Epstein explains "there is no intervention more powerful than simply 'being with'" (Epstein, 2010, p. 333).

Research is consistent that adolescents and emerging adults who are supported and mentored by an attentive non-parental adult are more likely to thrive (Wagner, 2012). This support can occur in a variety of ways:
1) Through consistent access to positive values through a collectively accepted code (Khanna et al., 2014) and where young people feel a sense of community (Zeldin, 2004);
2) Through non-parental one-on-one adult / young person mentorship "only if their relationships with [the young person is] deeply connected (i.e. duration, closeness, frequency of contact, and involvement)" (Khanna et al., 2014, p. 52); and / or
3) Through intergenerational partnerships where young people and adults work together collectively towards a common goal (Zeldin, 2004).

Effective support should be based on a deep sense of respect for one another (Wagner, 2012) and relationships must be warm and firm. Young people should feel a sense of safety and clarity from the adults involved but also supported to become increasingly autonomous (Steinberg, 2014). It is also important for adults "to find a balance between having high expectations for a young person's performance while providing them with the individualized support they needed to succeed" (Zeldin, 2004, p. 81).

When it comes to one-on-one mentorship, in order for improvements in relatedness to occur, contact between mentor and mentee must take place at least once a week or more if a young person is considered at risk (Khanna et al., 2014). When supportive relationships are more collective in nature "high-quality programs are characterized by supportive relationships between young people and staff, and among young people…program intensity and consistent participation are predictors of success (Khanna et al., 2014, p. 86).

Lastly, inclusive environments where a respect for diversity is present are critical. "Opportunities for young people to explore their ethno-cultural heritage in a supportive social context free from discrimination" must be present in order for programs to foster relatedness amongst young people of diverse backgrounds (Khanna et al., 2014, pp. 91 & 92).

### 2.2.3 Competence

"Competence can be defined as knowing how to handle situations effectively. Competence is developed through opportunities for skill-building and mastery of physical, intellectual, psychological, emotional, social, and cultural skills" (Khanna et al., 2014, p. 58). Having developed a particular competency means "more than just knowledge or skills. It involves the ability to meet complex demands, by drawing on and mobilising psychosocial resources (including skills and attitudes) in a particular context" (Ontario Public Service, 2016, p. 9). There is significant evidence suggesting that increases in an array of competences leads to positive cognitive/learning, behavioural/social, and psychological/emotional outcomes (Khanna et al., 2014).

However, competencies are culturally mediated…"with limited evidence to indicate that there are competences that are universal" (Khanna et al., 2014, p. 63). What research suggests is most important is that whatever competencies are developed have relevance for the young people who develop them, they must "connect with a young person's diverse interests and cannot simply be imposed from the outside" (Koshy & Mariano, 2011). More specifically tasks "that are misaligned for the individual or tasks that have no intrinsic value for the youth will miss the mark" (Khanna et al., 2014, p. 93).

An increased focus on the development of competencies has been a trend in the Canadian K to 12 education system (Christensen & Lane, 2016) with the goal to "prepare students to solve messy, complex problems – including problems we

don't yet know about – associated with living in a competitive, globally connected, and technologically intensive world" (Ontario Public Service, 2016, p. 3). In order for young people to be prepared to be problem solvers, they must feel like what they are learning has a real world application (Riemer, Lynes, & Hickman, 2013; Skinner & French, 2012). In other words, "an experience has meaning when we believe it is connected to the people or things we really care about; our immediate family, for example, or our careers or country" (Epstein, 2010, p. 113).

As young people develop competencies they should feel that they are "community resources and are given the opportunity to make and act on decisions for the common good" (Zeldin, 2004, p. 76) thus meeting the real needs of themselves and those around them. Learning in the context not of knowledge as an end goal, but rather with action as an end (Stauch & Cornelisse, 2016).

Encouraging the development of competencies that are relevant and applicable also leads to sustained engagement by young people in programs (Zeldin, 2004). Programs that are successful in skill-building "typically offer multiple sessions per week, provide individualized feedback, and involve developmentally appropriate tasks. The evidence supporting the inclusion of appropriately challenging tasks is very strong" (Khanna et al., 2014, p. 93). Research suggests that programs should refrain from 'teaching' or 'lecturing' (Tapscott, 2009) and instead focus on the application of young people's existing knowledge in an applied context, where young people have an opportunity to actively practice and build upon the competencies and skills they already have (Steinberg, 2014; Wagner, 2012).

### 2.2.4 Purpose driven impact
In the *Youth who thrive* report the authors discuss that they had hoped to include a fourth factor "representing the synergy across the other three factors" and that fourth would suggest that "other three factors' effects may be additive or multiplicative" (Khanna et al., 2014, p. 102). They planned to call this fourth factor 'youth engagement'. Youth engagement can be defined as "the meaningful participation and sustained involvement of a young person in an activity that has a focus outside himself or herself" (Riemer et al., 2013, p. 4). Given that the field of youth engagement research is relatively new, they decided that there was not enough compelling evidence at that time to allow them to include it.

Based on the research work conducted as part of the Youth & Innovation Project at the University of Waterloo, and other research that has since become available, we believe that compelling evidence now exists in order to add a fourth factor to the ARC model. We recommend expanding this fourth factor beyond youth engagement, and propose to call this concept purpose driven impact.

Purpose driven impact can be understood as recognizing the abilities that young people possess while they are young (Dougherty & Clarke, 2017) and giving

young people the opportunity to apply these abilities in a context that will have the potential for social, environmental or economic impact.

Purpose can be defined as an "intention to accomplish something that is at once meaningful to the self and of consequence to the world beyond the self" (Damon, Menon, & Bronk, 2003, p. 121). A sense of purpose is connected to healthy outcomes; psychologically, socially, and physically (Damon et al., 2003). Perceiving one's life as significant, purposeful and valuable is positively associated with psychological well-being (Dezutter et al., 2014).

But purpose alone is not sufficient, both the identification of a goal as well as participating in specific activities to attain that goal are key (Damon et al., 2003). In other words, being driven by one's purpose to have impact; "young people wish to be part of history…to engage in work relevant to their own interests yet larger than themselves" (Zeldin, 2004, p. 82).

With the addition of the factor of purpose driven impact, healthy development of young people comes to be understood as being not only about individual youth themselves and instead grounded in a "concept of social inclusion and the role of young people in creating inclusive societies" (Skinner & French, 2012, p. 7) and furthermore, includes a focus on young people finding their inner voice in such a way that they aim to positively change the world around them (Cawley, 2010).

The Youth and Innovation Project's most recent manuscript argues that young people's brains, regardless of generation, are wired for innovation. Between 15 and 25 years of age, the fields of neuroscience and developmental psychology tell us that adolescents and emerging adults naturally possess traits of successful innovators; in fact, during this life stage people are at the height of their innovation potential. They are collaborative, creative, observant, curious, willing to experiment, willing to challenge the status quo, risk takers, action oriented and visionary (Dougherty & Clarke, 2017). Research suggests that merely focusing on what young people in adolescence and emerging adulthood are becoming, at the cost of leveraging the abilities they possess while they are young, has negative consequences for both young people themselves and society at large (Arnett, 2004, p. 19).

Adding purpose driven impact as a fourth additive or multiplicative factor in understanding how the healthy development of young people occurs builds on Lawson Foundation's previous work which has encouraged adults to recognize children are competent and capable (Participaction, 2015). Purpose driven impact requires a shift from focusing on young people's failings and deficits to focusing on their achievements and abilities (Tanner & Arnett, 2009) and creating programs in which young people are encouraged to use these abilities to have real world impact. Most importantly and perhaps most difficult, it also requires shift from youth and adult relationships that are based solely on "guidance,

support and resources" to one where "power is shared, mutual, and reciprocal" (Tanner & Arnett, 2009, p. 40).

The latest research in neuroscience and developmental psychology confirm that adolescence and emerging adulthood are a critical time to support healthy development, if interventions hope to have an impact throughout adulthood. The ARC+P model outlines four principles (autonomy, relatedness, competence, purpose driven impact) that based on the best available research can guide initiatives that wish to make interventions during adolescence and emerging adulthood as effective in supporting healthy development as possible.

## 3.0 Historical and current societal context

In addition to considering cognitive development and what contributes to the healthy development of adolescents and emerging adults, it is also helpful to gain an understanding of societal factors that impact young people and their development. In this section both a historical context and a current societal context are explored.

### 3.1 Historical context

For most of human history, young people were integrated into adult society shortly after puberty (Epstein, 2010). Adolescence, the stage of life between childhood and adulthood, is considered to be an invention that coincided with the Industrial Revolution (Savage, 2007). As families moved to cities in search of work in factories, young people where often left to their own devices. The concept of 'youth' was developed in response to an increase in crime perpetrated by young people and the increasing prevalence of youth gangs (Savage, 2007). In reaction to this, young people began to be seen as a problem to be solved, and the concept of juvenile delinquents came to be. A desire for "the quick and sure containment of the children of the poor and working class" (Epstein, 2010, p. 63) and a host of social reforms including child labour laws and compulsory education began to isolate children from adults, extending childhood past puberty and disrupted the child-adult continuum (Epstein, 2010). This isolation led to a shift in how young people were viewed. "They were no longer seen as reasonably capable members of society; rather, they became 'sentimentalized'. Children were increasingly seen as helpless and incompetent beings requiring adult protection, and the age at which young people were defined as children steadily increased over the decades" (Epstein, 2010, p. 25).

In the 1950s, the concept of youth evolved once again as youth became the most sought-after demographic for marketers. The category of the 'teenager' was developed in the 1950s by market researchers. "As this implies, 'youth' is essentially a social and historical construct, rather than a universal state of being" (Buckingham, 2008, p. 5).

In the 1960s, community psychology began to emerge emphasizing development of young people's strengths in reaction to the more common deficit model (Khanna et al., 2014). However despite this, in the 1970s, research about young people continued for the most part to focus on 'at-risk' youth and once again young people were viewed through the lens of being a problem to solve (Franke & Human Resources and Skills Development Canada, 2010). Experts explain that "through such a perspective, young people are either vulnerable and in danger and need to be protected through government policies, or they are trouble-makers. They are conceived of as either potential victims of their upbringing and conditions, or as victims and potential perpetrators because of their personal traits and character" (Denstad, 2009, p. 17).

In the 1980s, youth focused research shifted to examining factors that influence social development. For example "instead of examining ways to respond to existing crises, interventions were developed to support youth to avoid particular problem behaviours" (Khanna et al., 2014, p. 9). And in the 1990s, research about young people focused not only on youth with behavioural problems but also began focusing on young people who were economically vulnerable and the difficulties they faced in the transition between school and work (Franke & Human Resources and Skills Development Canada, 2010).

Since the 1990s a more holistic approach to youth focused research has come into being which conceptualizes youth as community assets rather than societal problems (Zeldin, 2004). However, at the same time the mainstream discourse surrounding young people has remained negative and a significant portion of energy in the research community focused on the perceived deficits of young people (Twenge, 2013).

**3.2 Current context**
In recent years, what it means to be a young person in North America has continued to evolve. Expert and researcher Jeffery Jensen Arnett coined the term "emerging adulthood" in 2000. Emerging adulthood is defined as a new stage of economic and social detachment between adolescence and adulthood (Schwartz, 2015). Arnett explains that this phase of life is can be further understood through the presence of five characteristics: "identity explorations, instability, self-focused, feeling in-between and possibilities" (Arnett, 2004, p. 8).

Despite puberty providing a clear biological marker as to when adolescence begins, when young people leave emerging adulthood and enter adulthood is not as clear cut. Instead of a well-defined biological marker, researchers suggest that the beginning of adulthood is instead determined by a societal understanding of what it means to an adult. Traditional markers of adulthood have included full-time steady work, owning a home, having children and getting married (The Environics Institute, 2017). As young people today take longer to reach these traditional markers, adolescence and emerging adulthood is now considered to

be twice the length that it was in the 1950s (Steinberg, 2014). The next section explores some of the major trends that are impacting adolescents and emerging adults in the current societal context in Canada and the US.


### 3.2.1 Technology

One of the most significant influences on adolescents and emerging adults today is technology. The two current generational cohorts of young people, Millennials, defined as those born in 1982 until the mid-1990s (Howe & Strauss, 2009) and Generation Z, born starting in 1993 until present day (Statistics Canada, 2015), have both been influenced significantly by technology and social media throughout most of their lives.

A report commissioned by the John D. and Catherine T. MacArthur Foundation finds that "contemporary social media are becoming one of the primary 'institutions' of peer culture for U.S. teens" (Ito et al., 2008, p. 35). This study also finds that technological knowledge of young people and a lack of understanding of new technology by older generations is creating an "intergenerational wedge" (Ito et al., 2008, p. 37). As Canadian generational expert Don Tapscott explains, "this time, the traditional generation gap is exacerbated by a new communications medium that boomers don't fully understand. It is the kids who get it. They are, for the first time, an authority on something really important in the world" (Tapscott, 2009, p. 305).

The research indicates that there are both negative and positive consequences of a prolonged and consistent exposure to technology and social media (Ito et al., 2008), however this field of research is relatively new. What we do know is that whether or not exposure has positive or negative implications, it is changing the way young people today learn and grow.


### 3.2.2 Multiple transitions & instability

Adolescence and emerging adulthood are times of significant and numerous environmental changes and shifting social landscapes (Khanna et al., 2014). Emerging adulthood in particular "is the peak age period of residential mobility, school leaving, marriage, fertility, and unemployment. In fact, demographers call the transition to adulthood a period of demographic density because it is characterized by so many closely spaced life changes" (Roberts, Caspi, & Moffitt, 2001, p. 670). Experts remind us that "different youth negotiate multiple changes at different times than their peers, within different intra- and inter-cultural environments, with varying resources, and therefore require flexible, culturally appropriate and responsive supports throughout these transitions" (Khanna et al., 2014, p. 68).

In addition to the multiple transitions experienced by young people, the time that it takes to transition to adulthood has been steadily increasing (Tanner & Arnett, 2009). Millennials are the most educated generation in human history (Schreur &

Barton, 2014) and this trend is expected to continue for Generation Z (Kingston, 2014). Experts argue that increased time spent in education is the primary driver for the stage of life known as emerging adulthood coming into being (Franke & Human Resources and Skills Development Canada, 2010). There are both positive and negative implications of this lengthened time of transition between childhood and adulthood. On one hand "recent studies show that higher education contributes to the development of advanced cognitive abilities by improving the structure of the brain's white matter - and that college contributes to brain development above and beyond the effects of just getting older" (Steinberg, 2014, p. 45). In addition, young people today have additional freedom to explore than young people had in the past with many more life choices and paths open to today's young people than previous generations (Franke & Human Resources and Skills Development Canada, 2010). This increased freedom and choice allows young people today to more deeply search for their life purpose and connect with their identity (Arnett, 2004).

However, the lengthened transition to adulthood also has negative consequences. Some researchers go so far as to suggest that all youth can now be considered 'at risk' due to the large number of transitions occurring concurrently and an increased period of life marked by instability and vulnerability (Arnett, 2004). Others argue that income inequality is exacerbated by the lengthening of adolescence and emerging adulthood (Steinberg, 2014). Increasing rates of depression, stress and anxiety amongst modern adolescents (Schrobsdorff, 2016; The Human Environments Analysis Laboratory, 2016), with close to one in five Canadian young people reporting having a mental health issue (Vuchnich & Chai, 2013), further suggests that exposing young people to a lengthened period of uncertainty and vulnerability is a cause for concern.

Finally, the transition to adulthood is not one that can be considered synonymous with a transition to stability. In a 2010 report commissioned by Human Resources and Skills Development Canada it is argued that young people today must be prepared that modern adulthood involves multiple adjustments, changes of direction, backward steps and false starts (Franke & Human Resources and Skills Development Canada, 2010). Adulthood itself has changed, and in many ways no longer promises the stability it once did.

### 3.2.3 Relationship with parents & living at home

Another trend that has had a significant impact on today's young people is the evolution in the relationship between parents and their adolescent and emerging adult children. Paul Taylor of the Pew Research Center explains that "in their family lives, these generations are more interdependent now than at any time in modern history" (Taylor & Pew Research Center, 2014, p. 46). Family culture is also more democratic than in past generations. Parents of Millennials, when surveyed, said they have only half as many disagreements with their children as they had with their own parents (Taylor & Pew Research Center, 2014). At the same time, parenting trends have been influenced by the macro societal trends.

Adolescences today are increasingly infantilized. Psychologist Robert Epstein argues "the turmoil we see during the teens years in modern America is caused by the artificial extension of childhood past puberty. We hold our young people back and isolate them completely from adulthood. Many react in hostile or self-destructive ways" (Epstein, 2010, p. 144).

The proportion of emerging adults who are living at home has also increased significantly in Canada in recent decades. In 2011, 42.3% of young Canadians 20 to 29 lived in the parental home up from 26.9% in 1981 (Milan & Bohnert, 2015).

### 3.2.4 Financial security and work
For the first time in modern history, American and Canadian parents think that their Millennial children will be worse off financially than they were (Taylor & Pew Research Center, 2014; The Broadbent Institute, 2014). "Millennials are the first in the modern era to have higher levels of student loan debt, poverty and unemployment, and lower levels of wealth and personal income than their two immediate predecessor generations had at the same stage of their life cycles" (Pew Research Center, 2014, p. 5).

When it comes to employment there are several notable trends that are impacting young people's school to work transitions and work lives. First, in addition to today's emerging adults staying in post-secondary education for longer than any generation before them, training now also takes multiple forms and continues well beyond formal education. School and work combinations are now common (Franke & Human Resources and Skills Development Canada, 2010). Second, emerging adults are more likely than any other age group to be holding down multiple jobs or jobs without security or benefits. This has been termed 'precarious work' (Lewchuk et al., 2013). Thirdly, 65% of university graduates aged 24 or younger are overqualified for the work they do (Parliamentary Budget Officer, 2015) leading to concerns that increasing levels of education are having questionable benefits (Burning Glass Technologies, 2014).

### 3.2.5 Diversity
Millennials are the most racially diverse generation in North American history with 43% of Millennials in the USA being non-white (Drake, 2014) and in Canada, Millennials are the most culturally diverse generation yet (Norris, 2015). For those between 18 and 24 years of age in Canada, 17% were born outside of Canada, 22% identify as a visible minority and 6% are Indigenous. Aboriginal youth 15 to 30 years old are the fastest growing population in Canada (Elections Canada, 2013). These trend lines are predicted to continue for Generation Z (Perez & Hirschman, 2009).

Considering the historical roots of the concept of youth and how perceptions and understandings of young people have evolved over the last 200 years, allows us

to place our understanding of cognitive and healthy development in context. The attitudes held about young people and the way young people are perceived in society means that aiming to support healthy development of young people is not only a matter of using the best research and models available, but also working to shift the cultural narratives that hold young people back.

The current context for young people in Canadian and American society is rapidly evolving. It is important that those who work to support the healthy development of young people regularly re-evaluate their understanding of  this changing context. The following questions are, as such, worth considering:
- What does expertise mean in an era of rapid change and technology? How can we better value young people for the expertise they have to offer?
- How might intergenerational relationships need to shift in an era of increasing instability, when young people are increasing financial reliant on older generations?
- How does increasing instability throughout adolescence, emerging adulthood and adulthood affect healthy development and our understanding of how these life stages are increasingly differentiated or becoming increasingly similar?
- How will increasing diversity in Millennial and Gen Z cohorts impact what supports need to be in place to ensure healthy development of young Canadians?

## **4.0 Supporting young people to become leaders and stewards of the environment**

Environmental stewardship has been defined as "the responsible use (including conservation) of natural resources in a way that takes full and balanced account of the interests of society, future generations, and other species, as well as of private needs, and accepts significant answerability to society" (Worrell & Appleby, 2000, p. 263).

Young environmental leaders have been defined as those young people who "demonstrate four characteristics: (1) positive attitudes to the environment, (2) positive environmental behaviour, (3) initiative or leadership activity and (4) involvement in multiple spheres of action" (Riemer et al., 2013, p. 9). Across the field of leadership development there is agreement that action is the end goal. This can be viewed in contrast to education, for example where knowledge is end goal (Stauch & Cornelisse, 2016).

There are clear similarities between the first two characteristics of environmental leadership and the concept of environmental stewardship; positive attitudes and behaviour related to the environment. However, the positive behaviours that an environmental steward may carry out are individual actions that require only

changing the behaviour of themselves, not necessarily others. Leadership on the other hand aims to have a broader impact; an individual both changes their own behaviour and encourages others to do the same. This broader change may occur at the community scale, the regional or international scale or at a system wide scale (Ho et al., 2015). In other words, while every young Canadians can be an environmental steward, environmental leaders are likely be a smaller but more engaged group. For the purpose of this report, we will consider what it takes for a young person to become an environmental leader, understanding that by doing so they are both environmental stewards themselves and also likely to be encouraging other young people to become both environmental stewards and possibly environmental leaders.

An emerging but significant trend in the field of leadership development is a shift away from hierarchical models, with one leader at the top, towards a leadership based around a self-organizing or collaborative network. This has been termed 'transformational leadership' (Stauch & Cornelisse, 2016). "Transformational leadership is elemental to programs that foster individual leadership skill sets within a context of civic engagement, entrepreneurship, community development, public policy, corporate social responsibility and/or sustainability" (Stauch & Cornelisse, 2016, p. 13).

There is compelling evidence that repeated and frequent childhood experiences in nature are associated with a tendency towards environmental leadership later in life (Arnold, Cohen, & Warner, 2009; Gifford & Chen, 2016; Riemer et al., 2013; Wells & Lekies, 2006). Both the Lawson Foundation's commissioned research (Gifford & Chen, 2016; The Human Environments Analysis Laboratory, 2016) as well research conducted by other leading Canadian and American organizations (Canadian Parks Council, 2016; DJ Case and Associates, 2017) lay out clear recommendations for how to connect children and young people with nature. Several prominent organizations including the Canadian Parks Council and #Nature for All as well as the Lawson Foundation are actively working to see many of these recommendations put in place.

Given that the movement aiming to connect children and young people with nature is clearly established and has significant global momentum, for the purpose of this report, we discuss what factors beyond childhood exposure to nature that may encourage and support environmental leadership amongst adolescents and emerging adults.

**4.1 Young Canadians & the environment**
It is helpful to begin by outlining what we know about young Canadians and their attitudes and opinions about the environment. In a study conducted by Apathy is Boring, that surveyed over 4000 young Canadians, the environment was rated by young people as the most important issue facing the country (Bastedo, Dougherty, LeDuc, Rudny, & Sommers, 2012). A recent study by Abacus Data tells us that 39% of young Canadians think the environment and climate change

should be a priority for their political leaders (Coletto, 2016). A report by the Broadbent Institute explains that 48% of young Canadians would like to see the Federal government spend more on the environment (Mcgrane, 2015). According to the same study, young generations prioritize spending on the environment more than older generations do (Mcgrane, 2015). In addition, about 47% young people surveyed in a global study by Deloitte believe the purpose of business should also be to improve society and protect the environment and not just make profit (Deloitte, 2015).

However, a commitment to an issue does not always translate into personal action. Only 3% of young Canadians say the issue they are following the most closely in the last few months is global warming (The Environics Institute, 2017). Less than 5% of young Canadians who volunteer focus their efforts on environmental issues (Hientz, Murpy-Zommerschoe, Sladowski, & Stoney, 2010) and in a study conducted by the Youth & Innovation Research Project which that examined the last 35 years of youth-led social change in Canada, we found that only 8% of young leaders focused their efforts on addressing environmental issues (Ho et al., 2015). It is a difficult question to answer, why certain young people engage as leaders and why others do not. We will discuss this in more depth in the next section.

On a global level, a significant opportunity for engaging young people in environmental leadership can be found in the United Nations 2030 Agenda for Sustainable Development adopted in 2015 and more commonly referred to as the Sustainable Development Goals (SDGs) (Bureau for Policy and Programme Support United Nations Development Programme, 2017). Young people played an important role in shaping the SDGs and the UN's "human-rights based approach is founded on supporting youth empowerment and partnering with youth across all dimensions of sustainable development" (Bureau for Policy and Programme Support United Nations Development Programme, 2017, p. 1). The SDGs also represent a move globally and amongst young people towards viewing environmental issues from a holistic perspective and connecting these concerns with issues of poverty and inequality.

It is clear that young Canadians care about environmental issues and that there is a global momentum growing that hopes to see young people become more engaged in solving environmental challenges, but the question remains how might we ensure that young people's concerns turn into action and impact?

**4.2 Turning concern into action and impact**
According to a recent study by the Environics Institute, 41% of Canadian young people believe that working together can make 'a big difference' solving community problems and an additional 45% believe this can make 'some' difference (The Environics Institute, 2017). In a different survey, when asked 'Do you feel like you are a good citizen?' 62% young Canadians answered in the affirmative (O'Rourke, 2012).

Two thirds of young Canadians say they have donated to an organization or charity in the last 12 months (The Environics Institute, 2017). Canadians aged 15 to 19 have the highest volunteer rate of any age group at 66%. This is likely due to community service being part of mandatory high school graduation requirements for 20% of Canadian youth (Volunteer Canada, 2015). Volunteer rates then drop significantly throughout emerging adulthood (Volunteer Canada, 2015).

When it comes to voting, voter turnout has been on a steady decline in Canada and most of the western world for the last 40 years (Dougherty, 2013). This trend is driven by fewer young people of each new generation opting into the democratic process when they become eligible to vote. In the 1960s, 18 year olds turned out to vote at a rate of 70%, but only half as many 18 year olds who came of age in 2000s voted in the first election for which they were eligible (Loewen, 2013). In the 2015 Federal election, 57.1% of 18 to 24 year olds voted, representing the most significant increase in youth voter turnout in Canada in the last 20 years (Apathy is Boring, n.d.). However, it is hard to predict whether this positive trend will continue in 2019 and beyond or whether it was an anomaly.

Whatever the form of community or civic engagement that young people choose to engage in, one thing is certain, every action starts with finding an entry point to engagement. Unfortunately, a significant portion of young Canadians say they are not involved in their communities because no one asked them to get involved (Hientz et al., 2010). To increase the number of young environmental leaders in Canada, asking young people to become meaningfully engaged is an important first step. However, how young people are asked is also important, and research tells us that encouraging civic engagement amongst young people is most effectively done in person (Anthony, Anderson, & Hilderman, 2016). Another promising practice is peer-to-peer awareness raising to encourage engagement (Helferty & Clarke, 2009).

Despite being tech savvy, young people are still looking for an in person connection to the issues they care about (Anthony et al., 2016). Notably, 29% of young people say they have actively contributed content online to make a difference about a cause they care about (The Environics Institute, 2017). But almost as many, 20%, have been part of groups that regularly met in-person in the past 12 months and 18% have gone to a one-time event about a particular issue such as a protest, demonstration or meeting (The Environics Institute, 2017). More important that simply engaging young people online, is connecting those online strategies for engagement with offline strategies that deepen and personalize engagement (Anthony et al., 2016).

Millennials and Gen Z also tend to want to engage in their communities through less traditional structures, informal volunteering and looser more fluid networks (O'Rourke, 2012; Volunteer Canada, 2015). It has been suggested that "today's

youth are less accepting of hierarchical structure compared to previous generations" (Riemer et al., 2013, p. 9) and as such when it comes to meaningfully engaging youth, it is important to embrace youth as "co-creators and partners" (Riemer et al., 2013, p. 9).

The global organization Ashoka, a prominent advocate for social entrepreneurship, believes that rather than 'teaching' young people to become environmental leaders, the key to developing young leaders is to create opportunities for every young person to practise what they call changemaking while they are adolescents and emerging adults. Changemaking consists of four skills: empathy, teamwork, new leadership and changemaking (Drayton, n.d.). The reason behind their philosophy is that their internal research has shown that over 80 percent of the Ashoka Fellows where already leaders and entrepreneurs in adolescence (Drayton, n.d.). In a world where leadership becoming more collective in nature, they argue, we must prepare every young person to become a leader by supporting them to take on the mindset of a social entrepreneur and actively practice the necessary skills associated with changemaking while they are young (Drayton, n.d.).

In the area of environmental engagement more specifically, research tells us that two factors are particularly important when encouraging young people to become environmental leaders; "influential people and meaningful experiences" (Arnold et al., 2009, p. 8). Young leaders indicated that positive role models including teachers, parents as well as friends and peers who got them involved and offered support were critical to their engagement (Arnold et al., 2009). Meaningful experiences included "environmentally themed youth groups, conferences, and gatherings…these youths explained that these events increase awareness of issues, provide information, develop skills, empower, inspire, and bring people together to form networks and connections" (Arnold et al., 2009, p. 6).

For young people to sustain environmental leadership over a long period of time, research is clear that a belief by young people that their actions are making a difference is paramount (Riemer et al., 2013). One way of doing this when trying to solve long-term or complex challenges is to set interim milestones that are measurable (Riemer et al., 2013). Another important factor is to support young people to ensure their efforts are as impactful as possible (Ho et al., 2015).

In 2015, the team at the Youth and Innovation Project published a study that looked at 35 years of youth-led impact in the Canadian context to better understand how young Canadians can be supported to increase their social and environmental impact. Key findings were that to increase their impact:
- Young people should consider working in intergenerational partnership with adult decision-makers (i.e. advisory bodies, within political structures etc.) (Ho et al., 2015);
- Young people should also consider thinking like an intergenerational movement: "different players may need to use different strategies at

different times, and sometime simultaneously in order to reach the scale of impact hoping to achieve" (Ho et al., 2015, p. 60); and

- Those who work with and support young people should acknowledge and celebrate youth-led successes and impact (Ho et al., 2015).

Throughout the research we reviewed for this report, there is agreement that understanding how leadership development and sustained engagement occurs, as well as better understanding the kind of impact that young people have on society, are areas where there is a need for more research.

One important gap in the research is effective evaluation of youth focused programs. A helpful starting point in evaluating environmental programs that aim to develop young leaders is the model outlined in the academic article *A model for developing and assessing youth-based environmental engagement programmes* by Manuel Riemer, Jennifer Lynes and Gina Hickman (Riemer et al., 2013). In addition, the matrix for measuring youth-led impact outlined in the Youth & Innovation Research Project's academic article *Youth-led social change: Topics, engagement types, organizational types, strategies, and impacts* (Ho et al., 2015) is also helpful.

In summary, in order to turn young people's concern for environmental issues into active leadership the first step is to ensure that they are asked to get involved. The importance of ensuring there are diverse entry points, both online and offline where young people can connect their concern with action cannot be underestimated. To sustain engagement, many of the points raised in this section echo certain elements of the ARC+P model; relatedness and purpose driven impact in particular. What is important for healthy youth development also is relevant for developing engaged leaders. To amplify the impact of young people once they are engaged, connecting young people's activities locally to the global movement towards the SDGs is a valuable opportunity. Encouraging both intergenerational partnerships and celebrating the successes and impact that young people have are essential for sustained engagement and increased impact.

## 5.0 Canadian practitioner and funding landscape

The following section is a summary of six interviews conducted for this report with a diverse group of leading Canadian organizations in the youth & environment space: Oceanwise, Outward Bound Canada, Public Policy Forum's Your Energy Future Project, Parks Canada, Meal Exchange and Canadian Roots Exchange.

These organizations work on diverse issues including: encouraging solidarity between indigenous and non-indigenous youth; ocean health; connecting youth with nature; using wilderness and outdoors as that backdrop to develop human

potential; food at the intersection of personal wellbeing, health, environment and economics; and clean energy policy.

It is important to note that these organizations are diverse in the sense that they are both large and small, some are youth-led and some are youth-serving and they work on a diversity of issues. However, they were selected given their existing connection to the Lawson Foundation or the authors of this report, and because their programming is particularly innovative or of interest to the Lawson Foundation. As such the section below should be regarded as a summary of some of the cutting-edge approaches to youth and environment work being carried out in Canada.

The aim of these interviews was to: 1) determine themes in the youth and environment space; 2) determine the core elements that are driving organization's youth focused work; and 3) to gain a sense of the support these organizations are receiving and what gaps in support they identify.

## 5.1 Practitioner themes

Organizations were asked to identify themes that they are witnessing amongst those working in the youth and environment space in Canada, both in their own organizations and in the broader sector. The most common theme identified was a focus on reconciliation. One organization explained that 50% of its leadership are persons of indigenous heritage. Others spoke of the importance of incorporating traditional knowledge and indigenous perspectives into their work.

An equally common theme was a desire to include youth in decision-making and governance roles within the organizations interviewed. One organization spoke of how youth have to be 50% or more of their board and staff, and how all of their volunteers where under 30 years of age. Another larger adult-led organization spoke of their recent success in meaningfully engaging young people at the decision-making table as they carried out a major national project. Two other established adult-led organizations are just beginning the conversation about structurally integrating a youth voice in governance of their organizations. While both of these organizations acknowledged that their organizations are currently weak in this area, they recognized the importance of this becoming a priority.

Expanding the definition of what environmental programming looks like and viewing environmental issues from a more holistic, integrated perspective was also commonly discussed. An example of this is one organization's increased focus on integrating urban programming into their suite of programs. Another organization spoke of connecting environmental issues with challenges young people are facing such as mental health concerns and employability. Yet another organization spoke of how important connecting environmental issues with other social causes is for the young people they work with.

An attempt to address issues of the accessibility of environmental programing was also mentioned repeatedly, with organizations making efforts to target new Canadian and urban youth in particular. One organization spoke of how they aim to engage youth who are not included in most leadership programs; they see potential in 'quiet youth' and are willing to take chances on them. Not all of these young people finish their programs but the ones who do are significantly impacted because this is often their first opportunity for engagement, unlike many of the more typical 'leader types'. The same organization also spoke of how they create both paid and volunteer opportunities for young people, so that those young people who cannot afford to participate in a volunteer program also have an entry point into their programming.

The table below outlines all themes mentioned by the interviewees. Interviewees were encouraged to share as many themes as they thought were relevant. The vertical axis represents the number of organizations who mentioned the theme during the interviews.

**Table 1 - What themes are you seeing in the youth & environment space in Canada?**
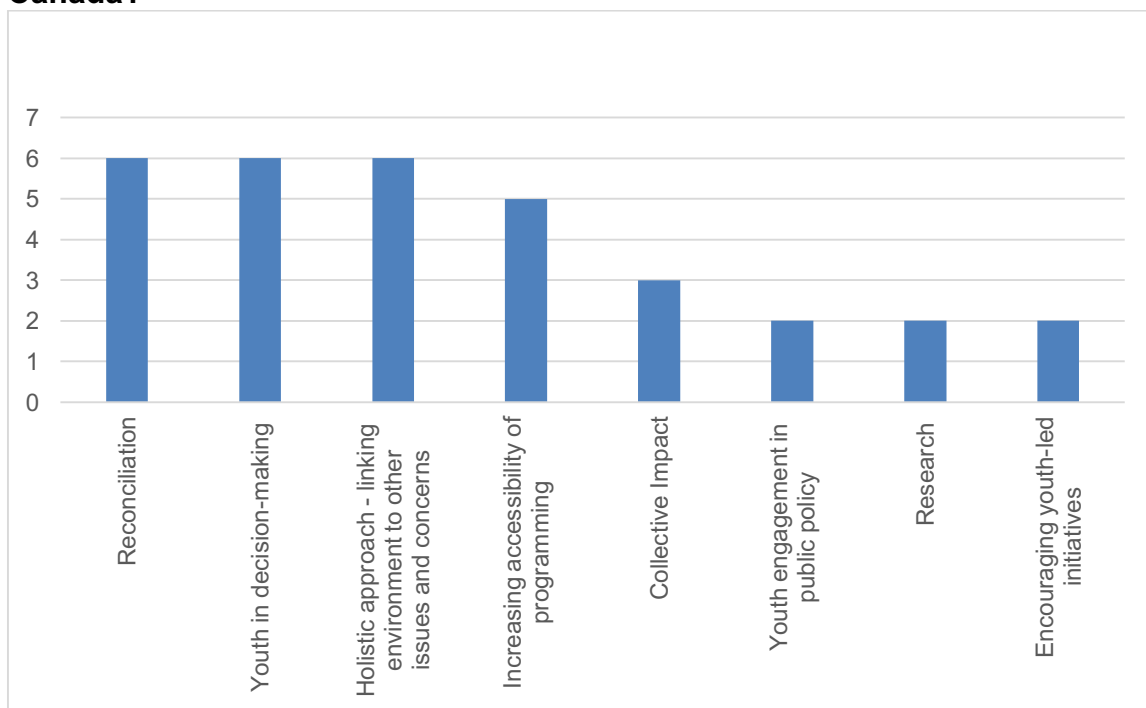


## 5.2 Organizational core elements

During the interviews, organizations were asked to identify what core elements guide their youth and environment work. The most common element amongst all those who were interviewed was building a sense of belonging or connection amongst participants and between participants and staff. To use the term from the ARC+P model, all organizations interviewed aim to develop 'relatedness' (Khanna et al., 2014). One interviewee mentioned how important it is to create a

scenario where young people have a community that they can rely on. Another interviewee spoke of how skilled practitioners and facilitators create a safe environment where they can effectively engage participants in experience and conversation.

A theme that is outlined in the academic literature we reviewed for this report, and that was also raised in the majority of the interviews conducted was a "move beyond the traditional definitions of environmental education that emphasized environmental literacy through knowledge and understanding of environmental issues – i.e. education about the environment, to a more holistic participatory approach – i.e. education for the environment. This new paradigm for environmental education presents a socially transformative approach that promotes, among other things, 'participatory and democratic education, critical inquiry and action taking, authentic and real-world contexts'" (Riemer et al., 2013, p. 5). While not all organizations have successfully made this transition in their organization's work, a desire to connect education and experience to action and impact was raised consistently. As one interviewee put it, every young person who comes to their programs knows about climate change, but the program leaders wanted to understand why that has not translated into behaviour change. As a result, their programming now focuses on education for civic engagement and building a social movement. This core element can be equated with the ARC+P model's principle of purpose driven impact.

The third most commonly identified element was encouraging young people to lead and take ownership over various decisions and program elements or in other words building young people's 'autonomy' (Khanna et al., 2014). Organizations spoke of how they value where their students 'are at' when they join their organization and support them in understanding the complexity of the problems they hope to tackle and what it will take to create impact. They value young people's abilities and ensure their expertise is not undermined, something which they find often occurs with other organizations.

Nature based programming, defined as programming that takes place in a natural setting, and experiential learning were also frequently mentioned. Experiential learning can be described as an activity that has the following four stages; concrete experience, reflective observation, deriving meaning from the experience and active experimentation (Learn Through Experience, 2017).

The table below outlines the elements mentioned by the interviewees that they view as core to their organizations' own programming. Interviewees were encouraged to share as many core elements as they thought were relevant. The vertical axis represents the number of organizations who mentioned the core element during the interviews.

**Table 2 - What are the core elements being used in your youth &
environment work?**
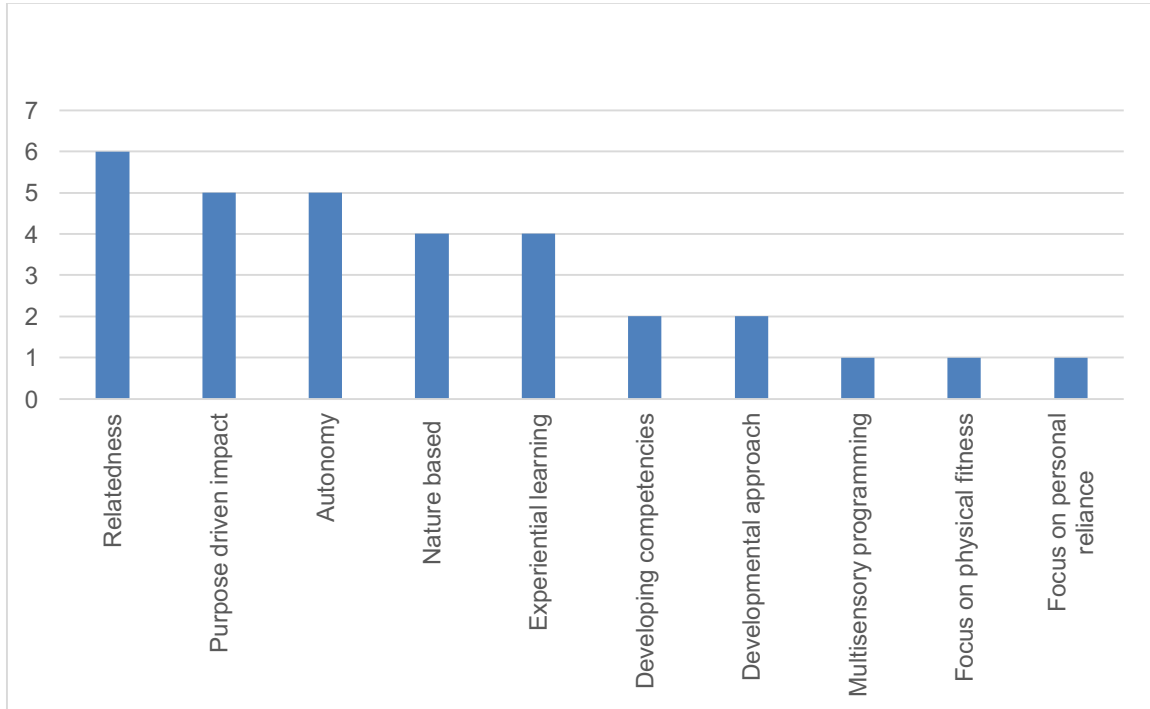


Interviewees were also asked where they saw innovation occurring in the youth &
environment space. Many lamented that they did not see a lot of innovation
occurring in general, and several spoke specifically about their concern that
innovation is not coming from the traditional education sector. That in fact
environmental education is becoming less and less of a priority within traditional
education institutions. Innovative organizations mentioned by the interviewees
were:
- Innovation often occurs in grassroots groups who have little or no funding
- Winnipeg Aboriginal Youth Opportunities
- Expeditionary Learning
- Alpine School
- United World Colleges
- Round Square
- Duke of Edinburgh
- Outward Bound
- Child Nature Alliance
- Forest Schools
- Starfish Canada
- MEC Outdoor Nation
- Coalition Wild
- Canadian Parks Council – Nature Playbook
- Evergreen
- Canadian Wildlife Federation
- Vancouver Aquarium

- Scouts Canada
- Students on Ice
- Mood Walks
- The Nature of Americans
- The National Park Rx
- Brickworks
- Student Energy
- Meal Exchange

It is important to note that interviewees did not include any organizations from the social entrepreneurship community or organizations who promote social innovation writ large. It may be worth determining through further research if in fact innovation in the youth and environmental space is actually happening in organizations such as social innovation incubators or hubs that are cross-disciplinary focus rather than in organizations whose primary mission is environmentally focused. The matrix outlined in Youth & Innovation Research Project's academic article *Youth-led social change: Topics, engagement types, organizational types, strategies, and impacts* (Ho et al., 2015) might be a good place to start to determine the various organizational types that might be worth examining further to find spaces where innovation programming related to youth and the environment is occurring.

While the organizations interviewed outlined themes in the sector and core elements in their own organizations that show promise, there is no doubt that increased support is needed for both the most innovative organizations in this space and others to fully embrace evidence based models such as ARC+P within their programs. The organizations interviewed show signs of meaningful implementation of some of the principles of the ARC+P model in their programming but not all elements are implemented in a deep and consistent manner across their youth focused programs. There is also a clear need for the support of innovation within the youth and environment space. This includes ensuring organizations that are innovating but are not large or well-known or who are not traditional environmental organizations (for example social innovation hubs or incubators) are supported.

**5.3 Funder landscape**
This section outlines what interviewees had to say about gaps in support in the youth and environment space in Canada. It also outlines leading practices and trends amongst funders in Canada who are supporting healthy development of young people, as described in reports written by these Foundations.

There is clear consensus amongst both the interviewees and experts in the fields of adolescence and emerging adulthood research that there are not enough interventions focused on ensuring the healthy development of young people 15 to 25 years of age (Schwartz, 2015; Steinberg, 2014). According to a report commissioned by the J.W. McConnell Family Foundation, most often when support does exist, it tends to focus on skill development for the future, rather

than encouraging young people to use their existing knowledge and skills to take action today (Campbell, 2002). As one interviewee explained, those who support young people in Canada are not investing in young people as a long-term solution to social and environmental challenges, instead often young people are simply viewed as another potential client base for organizational programming. This often translates into young people not being meaningfully engaged and organizations not hearing and responding to young people's needs.

All interviewees expressed a desire for convening; bringing together key players in the youth and environment space with the goal of knowledge sharing, capacity building and collaboration. This included a desire to bring together practitioners, academics, funders, policy makers and other key stakeholders. One interviewee expressed a desire for practitioners to better understand environmental education pedagogy and research, and saw convening as an important means of accomplishing this goal.

There was also a desire expressed to move beyond accepted theory and practice towards a paradigm shift in both how young people are engaged as well as how environmental issues are tackled. One interviewee spoke of how there is funding for the status quo but not for innovation, and that encouraging thought leadership, big picture thinking and innovation in the youth and environment space is key. Interviewees expressed that encouraging innovation and moving forward theory and practice also requires supporting evidence based research and pedagogy development.

Interviewees expressed a desire for funding which allowed them to focus on including youth in decision-making within their organizations. Both interviewees and reports by the J.W. McConnell Family Foundation and the Laidlaw Foundation spoke of the importance of supporting and encouraging intergenerational work (Campbell, 2002; Kang et al., 2010). "There is overwhelming agreement that adult-youth partnerships and multigenerational work are significant to achieving many of the things young people care about – self-empowerment, skill development, sustainability, and true social change" (Campbell, 2002, p. 11). Intergenerational work can take many different forms and is not always adult-led. As such, both interviewees as well as a report by the J.W. McConnell Family Foundation recommend funders be explicit in recognizing that power imbalances exist between youth and adults, as well as between youth-led organizations and adult-led youth-serving organizations. Funders should therefore consider how their work can address these imbalances (Campbell, 2002, p. 9).

Ensuring that funders understand the needs of young people and are in a regular dialogue with the young people their funding supports was identified as another way of encouraging youth in decision-making but also of ensuring that funders respond to the rapidly changing needs of young people. Engaging young people in the process of selecting grantees, ensuring there is a significant youth

presence when stakeholders are convened and ensuring that evaluations of funded programming include a youth voice are some of the mechanisms experts including YouthRex recommend funders consider (YouthRex Research & Evaluation, 2016).

Other gaps identified by both interviewees and in the funder reports reviewed were more structural in nature. A lack of support for core operating costs was raised repeatedly. This echoes a trend in the philanthropic sector, most notably led by the Ford Foundation in the USA, recognizing the realistic costs of overhead and the importance of strengthening organizations core capacities by providing operational funding rather than solely funding projects (Walker, 2015). Interviewees also expressed that operational funding is an essential mechanism through which to encourage innovation. If organizations aren't chasing after project funding, through which they are regularly asked to reinvent the wheel by recommending new projects that fit within strict program guidelines, then they are able to focus on refining their successful programs as well as taking bigger risks on new 'out of the box' ideas.

The need for flexibility in how funding programs are structured was also raised by interviewees. Finding creative ways to support, through partnerships and other means, more informal groups and networks as well as supporting collaboration and collective impact was seen as a leading practice. This has recently been an area of focus for the Laidlaw Foundation as a key means of ensuring diverse communities, including youth-led initiatives, are more likely to receive needed support (Kang et al., 2010). It was also expressed by those interviewed and in the funder reports reviewed that flexibility and support during the in application process can lead to more innovation and out of the box ideas having a chance for successful consideration (Campbell, 2002). In John Cawley's reflection on the J.W. McConnell Foundation's Youth Scape program he concluded that some of the most innovative practitioners submitted weak proposals to Youth Scape and as a result their initiatives were not funded, leading the Foundation to question its application process (Cawley, 2010).

The table below outlines the gaps in support identified by the interviewees. Interviewees were encouraged to share as many gaps as they thought were relevant. The vertical axis represents the number of interviews in which a gap was mentioned.

**Table 3 - What gaps in support are there in the Canadian youth & environmental space?**
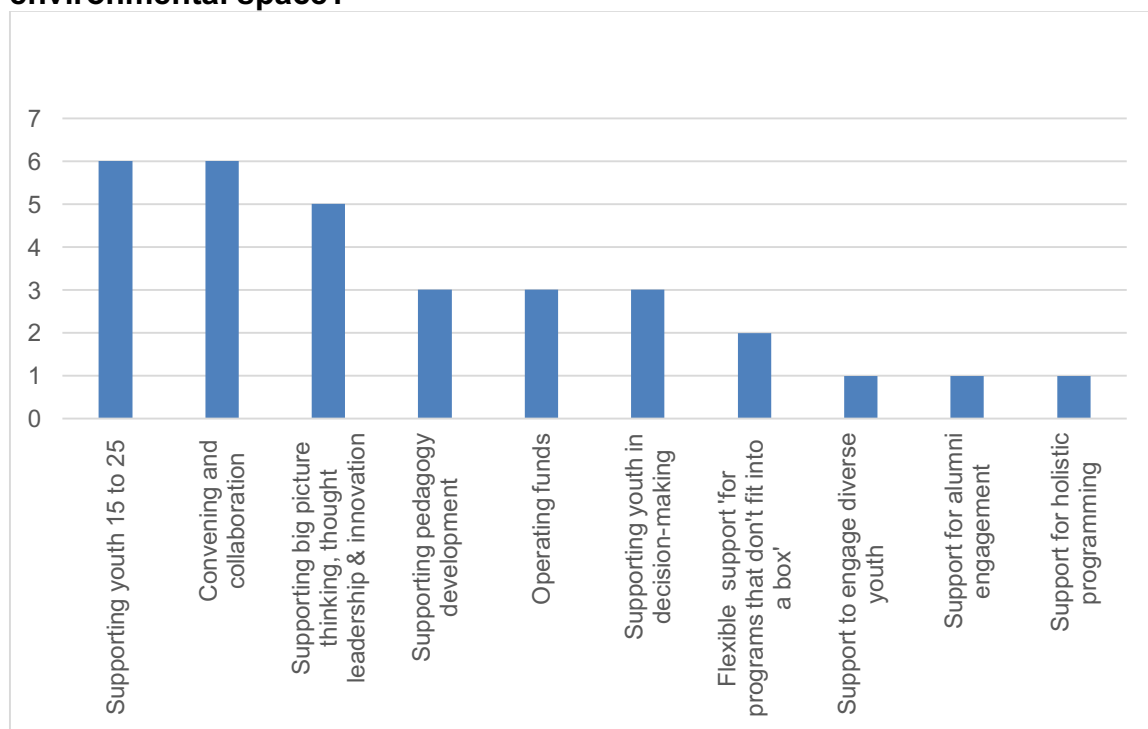


Interviewees were also asked which funders are the most innovative and forward thinking in the youth and environment space. Many lamented that they did not see a lot of innovation occurring in general; the biggest concern being that government is not an innovative funder in this space. In fact, interviewees expressed that the strings attached to government funding, the strict criteria and a lack of understanding of the realities for non-profits, make government funding more damaging to organizations then it is helpful in some cases. Innovative funders mentioned by the interviewees were:
- Ontario Trillium Foundation
- Inspirit Foundation
- Laidlaw Foundation
- Lawson Foundation (mentioned repeatedly especially the recent Outdoor Play Strategy)
- J.W. McConnell Family Foundation
- RBC Youth Strategy
- SSHRC
- TD Environment
- Weston Foundation
- Evergreen

Finally, some interviewees expressed an opportunity for those in the Foundation space to position Canada as an international leader in the youth and environment space, particularly in regards to the SDGs. This includes a policy advocacy role

to encourage the Federal government to more meaningfully support those Canadian organizations working in this area.

A clear need was expressed by interviewees for more support of healthy development of 15 to 25 year old Canadians. The need for support for convening and collaboration, thought leadership and innovation as well as pedagogy development were repeatedly expressed. As well as the need for operating funds, the support of youth engagement in decision-making within organizations and a desire for flexibility in funding programs to ensure diverse and innovative organizations are supported. A desire for Foundations to take a lead in ensuring that government meets the needs of Canadian organizations in the youth and environment space and that Canada plays a leading role globally, especially in regards to the SDGs was also highlighted.

## 6.0 Recommendations

Based on the literature reviewed for this report and the interviews conducted, this section includes a series of recommendations that the authors of this report suggest the Lawson Foundation consider in the development of the Foundation's Youth and Environment Impact Area.

**Recommendation 1:** The Lawson Foundation's Youth and Environment Impact Area should focus, as planned, on supporting initiatives aimed at 15 to 25 year old Canadians.

**Rationale:** Both research and interviews conducted support the Foundation's decision to target its support towards 15 to 25 year olds, due to the developmental importance of this life stage and the fact that it was identified that this cohort is lacking support in the Canadian youth and environment space.

**Recommendation 2:** The Lawson Foundation through its Youth and Environment Impact Area should consider focusing on supporting initiatives that facilitate young people becoming environmental leaders.

**Rationale:** There is a clear momentum amongst a global coalition of organizations who are working to connect children and youth to nature. Environmental stewardship is focused on individual impact and is not as likely to result in broader systemic change. Encouraging young people to become environmental leaders is both likely to have a longer term and higher scale of impact and is developmentally appropriate for the 15 to 25 year old age group.

**Recommendation 3:** The Lawson Foundation as part of its Youth and Environment Impact Area should consider using the ARC+P model (autonomy, relatedness, competence and purpose driven impact) as an assessment criteria to determine which initiatives it will support.

**Rationale:** Research in the area of healthy youth development combined with Youth & Innovation Project's research leads us to recommend the use of the ARC+P model to ensure that supported initiatives are effective in encouraging healthy youth development.

**Recommendation 4:** The Lawson Foundation through its Youth and Environment Impact Area should consider prioritizing the support of initiatives that include a strong commitment to intergenerational collaboration and that actively engage young people within organizational governance and decision-making structures.

**Rationale:** Research in the area of healthy youth development and the Youth & Innovation Project's own research highlight the importance of youth in decision-making to ensure both effective programming as well as healthy development of young people.

**Recommendation 5:** The Lawson Foundation should consider the creation of regular feedback loops to ensure that the Youth and Environment Impact Area is evolving to meet the changing needs of young Canadians. This could take the form of the Foundation establishing a permanent Youth Advisory Committee, regularly scheduling Youth Voices Retreats, ensuring a youth presence at all convening activities, continuing the Emerging Leaders Award, continuing to engage fifth generation family members, engaging the Foundation's young staff in funding decisions and / or ensuring youth voice is included in the evaluations of all Foundation funded initiatives.

**Rationale:** The current societal context for young people in Canada is rapidly evolving, and ensuring the Foundation is responding to these realities and reflecting them in the kinds of initiatives supported will be critical in the effectiveness of the Youth and Environment Impact Area. Meaningfully engaging young people in the Foundation's work also has the additional benefit of giving the young people involved an opportunity to learn, grow and have an impact.

**Recommendation 6:** The Lawson Foundation through its Youth and Environment Impact Area should consider regularly convening a mix of youth-led organizations, youth-serving organizations, academics, funders, policy makers and young people to both increase the capacity of the youth and environment sector and to encourage these entities to work collaboratively.

**Rationale:** A gap was identified in literature and interviews about the need for the development of the youth and environment sector. The Lawson Foundation can play an important role in both convening diverse groups and ensuring young people consistently have a seat at the table.

**Recommendation 7:** The Lawson Foundation as part of its Youth and Environment Impact Area should consider a review of its funding practices and in

particular consider how its application process might become more accessible to diverse and innovative organizations and how funding operating costs might become part of its granting philosophy.

**Rationale:** Both the need for accessibility of funder's application processes and the need for funders to fund operating costs were repeatedly expressed during interviews and this is a emerging trend in the Foundation community, especially in the US.

**Recommendation 8:** The Lawson Foundation should continue to prioritize the engagement of diverse young people, especially indigenous youth and new Canadian young people, in its funding choices and convening.

**Rationale:** Millennials and Gen Z are the most diverse cohort of any Canadian generation in history. Indigenous youth are the fastest growing population in Canada. Meaningfully engaging a diverse cohort of young people will be critical to the success of any youth focused initiatives in the coming years.

**Recommendation 9:** The Lawson Foundation through its Youth and Environment Impact Area should consider continuing to fund research in the area of youth and the environment.

**Rationale:** A gap was identified in the literature and through the interviews about the need for the development of the youth and environment sector through both research and pedagogy development.

**Recommendation 10:** The Lawson Foundation through its Youth and Environment Impact Area should consider how it might play an advocacy role to ensure the resources of the Federal government aimed at supporting organizations in the youth and environment space are leveraged in such a way to amplify the impact of Foundation's work.

**Rationale:** The Federal government is seen as sometimes being a hindrance to advancing the work of those in the youth and environment space. There is good will within the Federal government to support the development of young leaders but a need for external leadership to encourage the improvement of current government funding practices.

**Recommendation 11:** The Lawson Foundation should also consider how its work in Youth and the Environment can engage in the Canadian movement for the SDGs. The Foundation should consider developing a partnership with the Sustainable Development Solutions Network (SDSN) and in particular SDSN youth, whose Canadian chapter will be launched in May 2018 and housed at the School of Environment, Enterprise and Development at the University of Waterloo.

**Rationale:** There is a significant global movement around the SDGs that has prioritized the engagement of young people, there is an opportunity for the Lawson Foundation to connect its work to this movement, thus amplifying impact.

**Recommendation 12:** The Lawson Foundation should consider how it might contribute towards a narrative shift in how young people are viewed by mainstream society. Ensuring that young people are valued for their unique abilities and encouraged to have meaningful impact while they are young.

**Rationale:** In order for the Lawson Foundation's work in the youth and environment space to be effective, changing the broader cultural narratives that hold young people back is necessary.


## 7.0 Conclusion

In this report, we have explored the cognitive development and healthy development of young people as well as the historical and current societal context that influences young people's development. We have also examined how best to support young people to become environmental leaders and have explored opportunities and gaps in the youth and environment space in Canada.

The Youth and Environment Impact Area offers the Lawson Foundation a new opportunity to be bold and strategic in its work. Supporting young people, 15 to 25 years of age, to become environmental leaders has implications for both the healthy development of young people and for the health of our planet. It is a natural extension of the Foundation's existing work, allowing the Foundation to amplify its existing impact while at the same time forging new ground and addressing identified needs in the youth and environment space. We believe the recommendations outlined in this report lay the groundwork to ensure that the Lawson Foundation's Youth and Environment Impact Area will have meaningful impact in the years to come. We look forward to seeing these words turned into action.

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## Appendix A – List of Interviewees
Anita Abraham - Executive Director, Meal Exchange
James Bartram – Vice-President of Education and Youth, Oceanwise
Karen Keenleyside - National Science Advisor, #NatureForAll, Parks Canada
Pascale van der Leest - Social Science Analyst - #NatureForAll, Parks Canada
Rhonda Moore - Policy Lead, Public Policy Forum
Sarah Wiley - Executive Director, Outward Bound Canada
Vibhor Garg - Co-Executive Director, Canadian Roots Exchange


## Appendix B – List of Interview Questions

**Semi-Structured Interview Outline**
Opening comments about the study, the Youth & Innovation Project's role and the Lawson Foundation.

Questions:
- What is your name, your organization's name and your role at the organization?
- What programs or initiatives does your organization run to connect young people to nature or encourage young people to become stewards of the environment?
- Where are the gaps and opportunities? Barriers to equitable access?
- What are some of the themes that you see in the youth and environment space in Canada when it comes to connecting young people to nature or encourage young people to become stewards of the environment?
- What are the key principles necessary to ensure a program or initiative effectively connects young people to nature or encourages young people to become stewards of the environment?
- What kinds of support do you currently receive, either financial or otherwise from Foundations or other funders for your youth focused programs or initiatives? Which funders are most innovative in supporting this kind of work?
- What gaps are there in the support you need to do your work that a Foundation like the Lawson Foundation might be able to fill, either financial or otherwise?

Closing comments thanking the person and explaining next steps.