ED TALKS 2020

AGILE LEARNING

BCIT

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INTRODUCTION

This document is meant to be nothing more than the seed for academic discourse and exchange on an emerging topic – Agile Learning.

It doesn't aspire to be comprehensive, directional or final. Instead, it clarifies pertinent terms, lays out a concept, and attempts to stimulate conversation.

As such, it kicks off the BCIT Ed Talks 2020: Agile Learning dialogue.

With Ed Talks 2020, we will follow our proven path:

(1) Pick and define a topic
(2) Clarify terms and concepts, without being prescriptive
(3) Gather community input in various formats, including town halls and Thought Exchange
(4) Distil the prevalent themes into a draft document
(5) Circulate the draft document and gather last-mile input
(6) Infuse the last-mile updates into the final document
(7) Publish

We know that the Ed Talks concepts resonates with the BCIT internal community. We recently looked at response rates for our various Thought Exchanges over the past three years and the top spots belong to Ed Talks 2017/18: Education Plan and Ed Talks 2019: Part-time Studies.

We hope that the educational interest will continue and Ed Talks 2020 will round out the Top 3.

Dr. Tom Roemer

Vice President Academic

CONTEXT

A Generational Shift

Currently, the BC workforce is made up of four generations: Baby Boomers, Gen-X, Millennials and Gen-Z. Over the next three years, the majority of the workforce will shift from the former two groups to the latter two.

- Appendix A provides an interesting breakdown of the four generations, their attitudes and behaviours, their preferred social environment, as well as their relationship with education and the labour market.

This new distribution brings with it changes in attitude, outlook and work-life balances. Given our mandate for provincial strategic workforce development, we cannot ignore these generational shifts if we want to stay effective, relevant and attractive.

The Effects of COVID-19

It appears that the COVID-19 crisis has not brought forward radically new behaviours and values; instead, it has accelerated and aggravated previously existing trends.

Many of these trends are established by Millennials and Gen-Z; they may be adopted or opposed by Boomers and Gen-X, but they cannot be ignored.

Some of the effects we observe are:

1. Baby boomers are retiring faster
2. Agile work environments evolve faster
3. New technologies see faster adoption
4. The service and retail industries change faster
5. PSE is becoming a global, flexible matrix (students & faculty)
6. Digital Transformation is happening everywhere

Before diving into Agile Learning, let's have a quick look at **Digital Transformation.**

Digital Transformation

Digital Transformation is the adoption of digital technology to transform businesses, services and life in general.

- It is important to recognize that in addition to efficiency via automation, digital solutions may enable new types of innovation and creativity, rather than simply enhancing and supporting traditional methods.

Industry (and with it society) have experienced disruptive technology changes, a.k.a. industrial revolutions, throughout history. So far, four industrial revolutions have been identified (based on the steam engine, electricity, automation, and interconnectivity), however a fifth revolution has already been suggested based on the advent of artificial intelligence (AI).

It is worth to note the accelerated speed of technology evolution and the shrinking time span between the associated industrial revolutions.

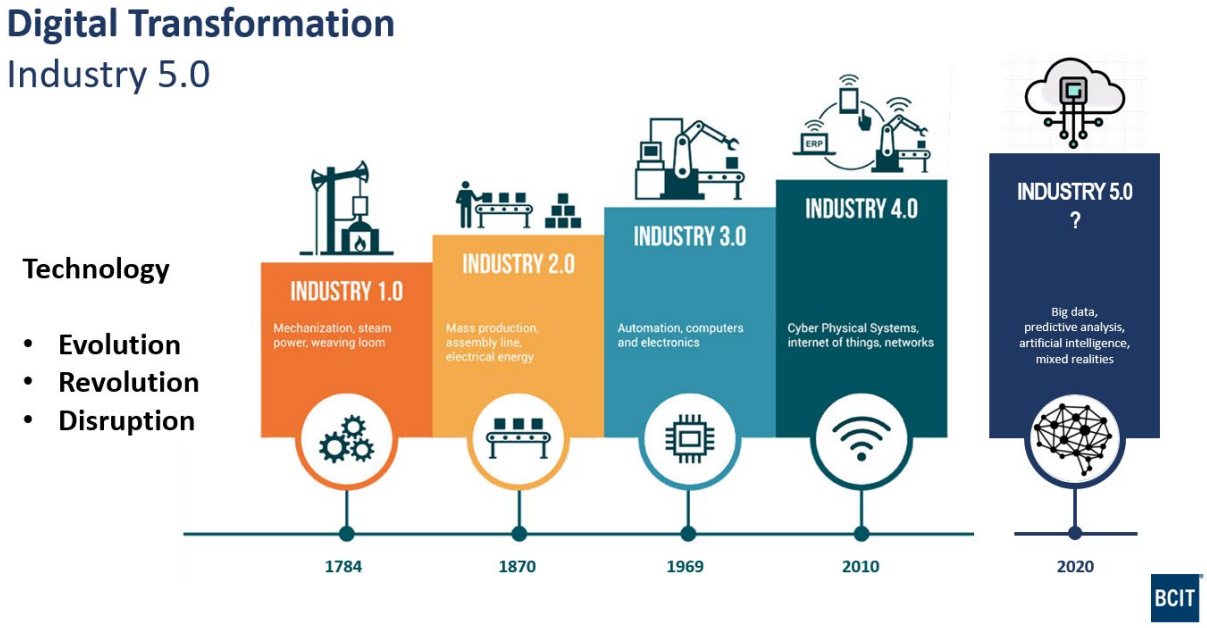

Figure 1: Industrial revolutions

Digital transformation will have a profound effect on how we live, work and play. And: how we learn and study.

AGILE LEARNING

At the outset, it is important to acknowledge that Agile Learning is not meant to replace our traditional and proven model of full-time cohort-based learning. Instead, it is a complement to address a new reality, an emerging group in the workforce.

Structurally, it belongs into the larger category of Enhanced and Flexible Learning, alongside the learning methodology support our Division of Education Support and Innovation (ESI) provides. One may say that within Enhanced and Flexible Learning, Agile Learning concentrates on the "what" rather than the "how".

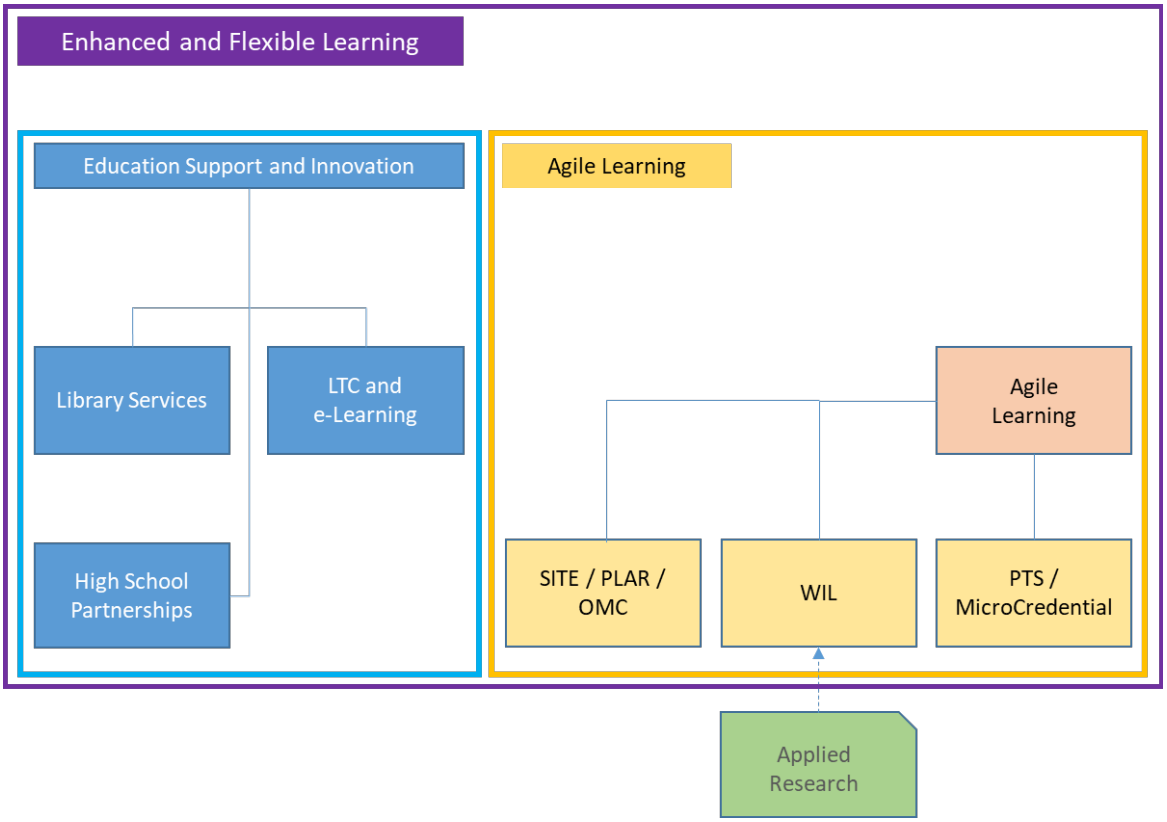

Figure 2: Agile Learning

Components

Various distinct components fit the Agile Learning definition. They are independent but can work in collaboration with each other.

Microcredentials and Badges

Microcredentials are short-cycle, flexible, competency-based learning experiences that demonstrate mastery of certain skills or competencies. They may be combined and stacked to earn full credentials.

Microcredentials fulfil the need of industry or individuals for a distinct skill in a concentrated and focussed way.

A **badge** is a digital icon representing an acknowledgment issued by an educational institution and validating successful demonstration of a distinct skill and competency.

- In our PTS model, a statement of completion is often issued to validate attendance and acquired competencies. The microcredential is a modification of that approach.

Education Council will be tasked with approving a framework for microcredentials, e.g. naming, issuance, the minimum and maximum number of credits and/or hours that form a badge or microcredentials, and the necessary quality control.

Open Multi-disciplinary Credentials (OMC)

Open multi-disciplinary credentials allow students the flexibility to combine credits from different disciplines and institutions into a recognized credential. It also offers the opportunity to recognize non-traditional forms of learning such as indigenous knowledge and workplace experience.

Prior Learning Assessment and Recognition (PLAR)

Prior learning assessment is a long-established practice to assess knowledge and competencies from external sources, and provide students with credit for academic work, an elevated academic standing or direct access to challenge an exam.

Knowledge and skills are assessed, course by course, by faculty members in the respective program area. PLAR may evaluate academic work from other

jurisdictions or sources of non-traditional learning including volunteer work, work experience, or research projects.

Work-Integrated Learning (WIL)

Work-integrated Learning has become a central pillar of experiential learning. It has gained strong attention on the part of Governments and industry in an attempt to infuse more "real-life elements" and practical experience into post-secondary education. It may provide academic credit for structured job experience, and it is aimed at helping young people to make the school-to-work transition.

WIL can occur in different settings and models. Figure 3 illustrates the ten distinct types of WIL. Appendix B provides a more detailed description of the different forms of WIL.

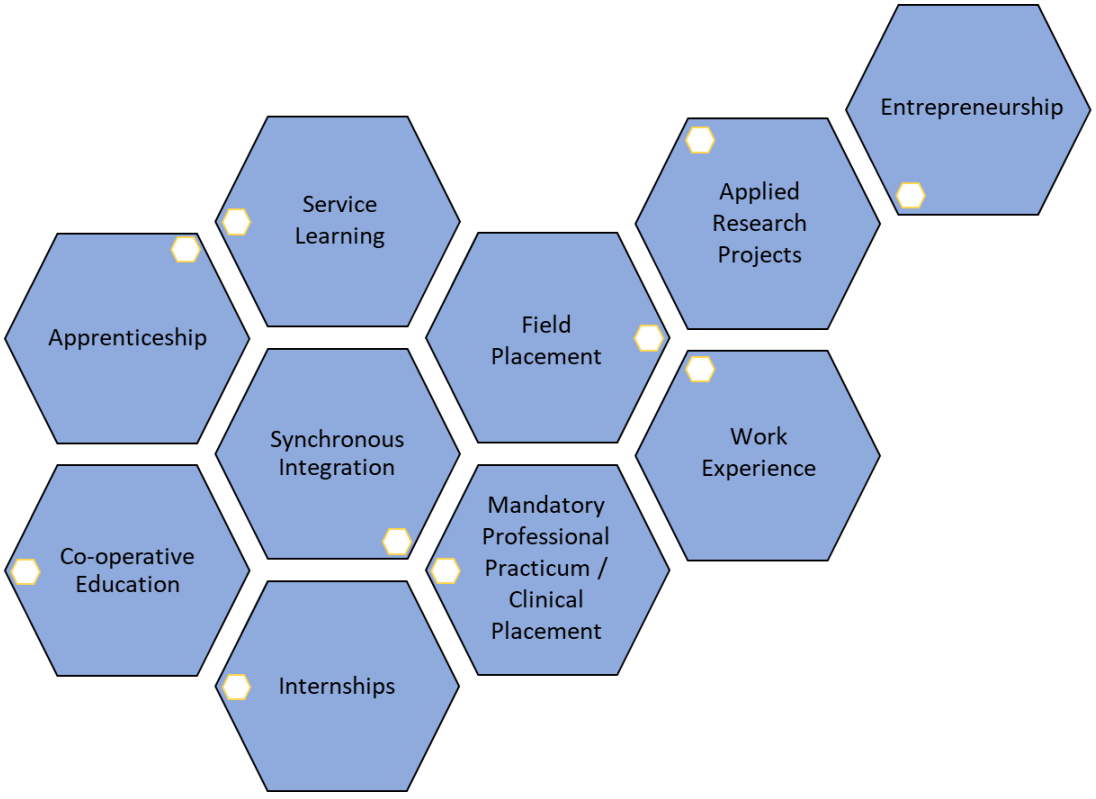

Figure 3: Forms of Work-integrated Learning (WIL).
Source: Based on a model developed at the University of Waterloo.

WIL and Agile Learning come together through defining the educational outcomes a placement may pursue. Figure 4 shows a matrix of prospective outcomes. Of course, emphasis and ratio among the components will differ with each individual student and from placement host to placement host.

Expand Expertise	Information and data literacy	Technological literacy	Subject-matter knowledge / skills
Develop Self	Self-assessment	Self-management	Life-long learning & career development
Build Relationships	Communication	Collaboration	Social skills
Design and Implement Solutions	Critical thinking	Innovation mindset	Operationalization
Be a Global Citizen	Cross-cultural agility	Globalization	Business operations and logistics

Figure 4: Matrix of prospective shared outcomes in a broad implementation of WIL. Source: Based on a model developed at the University of Waterloo.

APPENDIX A: GENERATIONS IN THE WORKFORCE

				
Generation	**Boomers** 1946-1964	**Gen-X** 1965-1980	**Millennials** 1981-1996	**Gen-Z** 1997-2012
Workforce Share (2019)	21%	32%	33%	13%
Demographic	Prospects High-school Grads Upgraders Career Changers Retirees	Prospects High-school Grads Upgraders Career Changers Retirees	Prospects High-school Grads Upgraders Career Changers Retirees	Prospects High-school Grads Upgraders Career Changers Retirees
Education Focus	Co-skilling	Re-skilling	Up-skilling	Mid-skilling
Career through…	Time & credential	Versatility	Risk-taking	TBD
View of Education	A birthright	A way to get there	A massive expense	Anytime, anywhere
Social Environment	Radicals of the 70s and Yuppies of the 80s who were promised the North American Dream	Taking care of themselves, they watched politicians lie and parents get laid off	Hoping to turn the world around, they grew up more sheltered but often with working moms or divorce	Pragmatic attitude towards money and society amidst a polluted planet and social emancipation
Raised by	Traditionalists	Traditionalists Boomers	Boomers, Gen-X	Gen-X, Millennials
Relationship to Work	Workaholic for security	Work smarter for results	Work-life balance	Work-life blend

				
Generation	**Boomers** 1946-1964	**Gen-X** 1965-1980	**Millennials** 1981-1996	**Gen-Z** 1997-2012
Workforce Share (2019)	21%	32%	33%	13%
Core Value	Success	Time	Individuality	Sustainability
Motivation	Money & fame	Tasks & results	Teams/networks	Global issues
Focus	Relationships	Freedom & time off	Bright teams	Woke teams
Preferred Work Environment	Flat hierarchy Democratic Equality	Functional & flexible Access to information Access to leadership	Positive & collaborative Creative & diverse Constant feedback	Fast & convenient Socially engaged Connected
Motivation	Valued & needed Money "You are an asset!"	Removal of rules Freedom "Do it your way!"	Bright teams Time off "Try it and have fun!"	Woke teams Tangible change "Making a difference"
Work Liabilities	Expect workaholics Dislike conflict Process-oriented	Cynical / skeptical Dislike rigid rules Mistrust institutions	High expectations Dislike authority Impatient	Expectations of impact Social media 8 seconds to assess
Relationship w/ Technology	Acquired	Assimilated	Integral	Innate
Communication	Diplomatic In-person / phone Present options	Blunt & direct By e-mail Don't micro-manage	Frequent Internet Provide feedback	Constant Social media Provide feedback

APPENDIX B: FORMS OF WORK-INTEGRATED LEARNING (WIL)

Synchronous Integration

In a synchronous integration model, the student is employed full-time and goes to school as part of this employment. There often is a strong collaboration between employer and academic institution. For example, a technical institute may collaborate with a local manufacturer through shared applied research, educational appointments of industry practitioners and joint planning including human resources and financial investments.

Apprenticeships

Apprenticeship models differ from country to country. The Canadian model of apprenticeships currently is limited to the industrial trades. Here, the apprentice is indentured with an employer (sponsor) and is introduced to the industrial sector. Every year the apprentice visits a registered trades school (usually 6-8 weeks) and receives training towards a more advanced level. The apprentice then returns to the sponsor and practices the newly gained skills. This cycle is repeated four times until the apprentice is ready to graduate as a journeyperson.

Other countries such as Germany may offer apprenticeships in areas other than the industrial trades (a.k.a. the *dual system*).

Co-operative Education

In cooperative ("co-op") learning models, students alternate a school term with a work term in a structured manner, involving a partnership between the academic institution and the employer. It generally is both paid and intended to advance the education of the student through exposure to practice. Many institutions coordinate co-op placements through a dedicated department. The *co-op host* often covers an agreed-upon range of topics, and students receive a grade (and thus academic credit) for their performance. Often the students are paid a modest salary.

In Canada, the number of required work terms varies by program; however, the time spent in work terms must be at least 30% of the time spent in

academic study for programs over 2 years in length and 25% of time for programs 2 years and shorter.

Internship

Internships are similar to co-op placements but normally occur only one time, in a less structured manner and towards the end of a course of study. This may result in more flexibility for students. Internships can be paid or unpaid, shorter in length, and the range of topics may be less defined. Grades and quality assurance visits by coordinators or faculty are less common than among co-op programs.

Service Learning

Service learning refers to learning that actively involves students in a wide range of experiences, which often benefit others and the community, while also advancing the goals of a given curriculum.

Community-based service activities are paired with structured preparation and student reflection. Desired outcomes are a deeper understanding of the course/curricular content, a broader appreciation of the discipline and an enhanced sense of civic responsibility. Service learning may also occur in a foreign country, often through involvement with an NGO.

Mandatory Professional Practicum / Clinical Placement

Mandatory Professional Practicum/Clinical Placement involves work experience under the supervision of an experienced registered or licensed professional (e.g. preceptor) in any discipline that requires practice-based work experience for professional licensure or certification.

Practica are generally unpaid and, as the work is done in a supervised setting, typically students do not have their own workload/caseload. Passing the practicum is a mandatory requirement for further advancement in the program. Conversely, failing a practicum, e.g. by exhibiting unsafe practice, may result in removal from the program.

Field Placement

Field Placement provides students with an intensive part-time/short term intensive hands-on practical experience in a setting relevant to their subject of study.

Field placements may not require supervision by a registered or licensed professional and the completed work experience hours are not required for professional certification and academic credit.

Field placements account for work-integrated educational experiences not encompassed by other forms, such as co-op, clinic, practicum, and internship.

Work Experience

Work Experience intersperses one or two work terms (typically full-time) into an academic program, where work terms provide experience in a workplace setting related to the student's field of study and/or career goals.

Applied Research

Applied Research students are engaged in research that occurs primarily in workplaces, including consulting projects, design projects, and community-based research projects.

The experience may also be offered at the institution, provided that there is sufficient separation between the instructional component and the applied research project.

Entrepreneurship

Entrepreneurship allows a student to leverage resources, space, mentorship and/or funding to engage in the early-stage development of business start-ups and/or to advance external ideas that address real-world needs for academic credit.

Entrepreneurship projects are often located at incubation centres and accelerator hubs, and provide students with exposure to the real-world interaction of funding, development, marketing and sales.