

Furtado, Angelina MTIC:EX

From: Morel, David P MTIC:EX
Sent: Friday, March 4, 2016 7:20 AM
To: Jacobson, John MTIC:EX; Greg Caws
Cc: Coad, Jeremy A MTIC:EX; Butterworth, Kevin MTIC:EX
Subject: s.13
Attachments:

Hi John and Greg

Ministry of Education is putting together an advisory group to work with them on the coding curriculum initiative. s.13
s.13

Appreciate your thoughts on who should be on this committee. From industry their initial thoughts are:

Technology Industry:

s.13

I am meeting with Bill today and will discuss with him.

David

From: Winkelmans, Tim EDUC:EX
Sent: Friday, March 4, 2016 12:28 AM

Page 03 to/à Page 08

Withheld pursuant to/removed as

s.13

Furtado, Angelina MTIC:EX

From: Greg Caws <gcaws@bcic.ca>
Sent: Friday, March 4, 2016 12:33 PM
To: Morel, David P MTIC:EX; Jacobson, John MTIC:EX
Cc: Coad, Jeremy A MTIC:EX; Butterworth, Kevin MTIC:EX
Subject: Re: s.13

Things you need for the company representative:

1. They need to have coded
2. They need to be raising or have raised kids in BC
3. They need to know about training or teaching
4. It would be preferred if they knew about how to teach instructors

There are two people that come to mind immediately:

s.22

I'll try and find others.

Greg

From: "Morel, David P MEM:EX" <David.Morel@gov.bc.ca>
Date: Friday, March 4, 2016 at 7:19 AM
To: "Jacobson, John MTIC:EX" <John.Jacobson@gov.bc.ca>, Greg Caws <gcaws@bcic.ca>
Cc: "Coad, Jeremy A MTIC:EX" <Jeremy.Coad@gov.bc.ca>, "Butterworth, Kevin MTIC:EX" <Kevin.Butterworth@gov.bc.ca>
Subject: FW: s.13

Hi John and Greg

s.13

I am meeting with Bill today and will discuss with him.

David

From: Winkelmans, Tim EDUC:EX

Sent: Friday, March 4, 2016 12:28 AM

To: Morel, David P MTIC:EX

Subject: s.13

Hi, David

s.13

Tim

Furtado, Angelina MTIC:EX

From: Greg Caws <gcaws@bcic.ca>
Sent: Monday, March 7, 2016 9:03 AM
To: Morel, David P MTIC:EX; Jacobson, John MTIC:EX
Cc: Coad, Jeremy A MTIC:EX; Butterworth, Kevin MTIC:EX; Dean Prelazzi
Subject: Re: s.13

Hi David,

We've had some further thought and have come up with the following:

A. Per my last email:

Things you need for the company representative:

1. They need to have coded
2. They need to be raising or have raised kids in BC
3. They need to know about training or teaching
4. It would be preferred if they knew about how to teach instructors

There are two people that come to mind immediately:

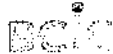
s.22

C. Companies to consider in order of preference:

1. BCIC (Dean Prelazzi would be our representative and he has worked with BC Gov't committees)
dprelazzi@bcic.ca
2. MacDonald Dettwiler
3. Hootsuite
4. Slack
5. Global Relay
6. Bench

Greg

Greg Caws
President and CEO



BC Innovation Council
Blog | Twitter | Facebook
604.602.5259
www.bcic.ca

From: "Morel, David P MEM:EX" <David.Morel@gov.bc.ca>
Date: Friday, March 4, 2016 at 7:19 AM
To: "Jacobson, John MTIC:EX" <John.Jacobson@gov.bc.ca>, Greg Caws <gcaws@bcic.ca>
Cc: "Coad, Jeremy A MTIC:EX" <Jeremy.Coad@gov.bc.ca>, "Butterworth, Kevin MTIC:EX" <Kevin.Butterworth@gov.bc.ca>
Subject: FW: s.13

Hi John and Greg
s.13

From: Winkelmanns, Tim EDUC:EX
Sent: Friday, March 4, 2016 12:28 AM
To: Morel, David P MTIC:EX
Subject: s.13
Hi, David

Furtado, Angelina MTIC:EX

From: Winkelmans, Tim EDUC:EX
Sent: Monday, March 14, 2016 5:14 PM
To: Coad, Jeremy A MTIC:EX; Morel, David P MTIC:EX
Subject: FW: Panel questions and reports for Wednesday (Skills Summit) [tomorrow]
Attachments: National Digital Talent Strategy 2020 Executive Summary.pdf; ICTC Leaders in Action Summit Agenda_9March2016_ENGLISH-FINAL.DOCX

Importance: High

I was in Ottawa on Wednesday representing K12 on the Digital Skills Pipeline panel. I'm just back today (was on vacation most of the week) – is it an appropriate item for tomorrow's agenda (or an upcoming meeting?) I've also attached the agenda for the day on Wednesday.

Tim

From: Tanya Woods [<mailto:twoods@theesa.ca>]
Sent: Tuesday, March 8, 2016 6:29 AM
To: Winkelmans, Tim EDUC:EX; anna.lambert@shopify.com; Kate Arthur; nathalie.verge@ubisoft.com
Cc: Julien Lavoie
Subject: Panel questions and reports for Wednesday (Skills Summit) [tomorrow]
Importance: High

Hello Everyone!

I hope you all had a super weekend. As promised, you can access the 2 reports that have/will be released before our panel discussion here:

1. ESAC Report: <http://theesa.ca/resources/playing-for-the-future-2/>
2. ICTC Report: the executive summary is attached – the password is: ndts (the full ICTC Report is not yet available to share)

Panel Overview – The Digital Skills Pipeline

Educators, academe, government, community groups and industry all have a critical role to play in developing the workforce of tomorrow. Canada's competitiveness in knowledge industries relies on youth and young workers having early and easy access to the training that will lead to employment and advancement in technology sectors. This panel gathers experts from different parts of the digital skills training pipeline to discuss the initiatives that have had success to date and some of the best practices already developed by the key innovators in this area.

Panelists:

Tim Winkelmans – Director, Graduation, Skills, and Distance Learning | Learning Division - BC Ministry of Education
Anna Lambert - Director of Talent Acquisition, Shopify
Kate Arthur – Kids Code Jeunesse
Nathalie Verge – Ubisoft

Moderator: Tanya Woods, VP Policy & Legal Affairs, Entertainment Software Industry Association of Canada

Questions: Based on our conversation last week, I will let the discussion evolve naturally for the most part, however, to give everyone a chance to contribute I am going to try as ask each of you a question and invite others to comment.

The questions looks something like this:

- 1) ALL - Please introduce yourselves, where you work, your interest in STE(A)M skills, why this is a matter of importance to you? (ALL – 1-2 minutes/each)
- 2) KATE, NATHALIE, ANNA - what are the most in-demand skills? (Why are there shortages in talent? What activities are proving successful in upscaling skills? What mechanisms are working to create new digital skills?)
- 3) NATHALIE – How has industry, and specifically Ubisoft, responded to address the skills gap? (CODEX, etc..)
 - a. KATE – How have parents and educators responded?
 - b. TIM – How is the BC government responding?
 - c. ANNA - How has the talent shortage impacted the growth of Shopify, and how do you deal with it in the short term? Longer term? Are you encouraging or contributing to creating more diversity in STEM fields? If so, how?
- 4) KATE – What has been the response across Canada to your efforts to raise the level and accessibility of coding for kids?
 - a. TIM – What has been the response of the public and teachers to the announcement to include coding in curriculum? Do you think other provinces will follow the lead of BC and NS?
- 5) KATE, NATHALIE – Do you think KidsCodeJeunesse model and CODEX working? How could it be scaled up? What resources are missing to succeed?
- 6) ALL – Are stakeholders aligned and working well together writ large?
 - a. Where are the gaps?
 - b. How can we succeed in making an impact here and creating more alignment?
- 7) ALL - Do you see a role for the federal government in digital skills formation?
 - a. If so, what immediate actions could be taken to make a difference now, going forward?

Really looking forward to seeing you all. If you have any questions or contributions before the event, please let me know.

Have a great day,
Tanya

Tanya Woods

Vice-President, Policy and Legal Affairs | Vice-présidente, Politiques et Affaires juridiques
Entertainment Software Association of Canada | Association canadienne du logiciel de divertissement

130 Spadina Ave, Suite 408 | Toronto, ON M5V 2L4
613-293-3774 | twoods@theESA.Ca
Twitter: @ESACanada | www.theESA.Ca



This message may contain confidential information that may be protected by the solicitor-client privilege or otherwise. If you are not the intended recipient, you are notified that any disclosure, copying, or use of the contents of this message is strictly prohibited. If this message has been received by you in error, please notify the sender immediately by e-mail and delete the original message. Thank you.

DIGITAL TALENT: ROAD TO 2020 AND BEYOND

A NATIONAL STRATEGY TO DEVELOP CANADA'S TALENT IN A GLOBAL DIGITAL ECONOMY

Classification: Confidential – Under embargo

Executive Summary

Over the past several decades, the world economy has witnessed unprecedented growth as young economies emerged, trade expanded, and education continued to bridge the social and economic divide. This growth has largely been the result of technological advances — a critical enabler behind any modern economy.

The economic landscape today and moving forward, however, is somewhat different. Increasingly, the global economic outlook remains uncertain and Canada is facing its own challenges owing to low commodity prices and a precipitous devaluation of the Canadian Dollar against other major currencies. Compounding this situation are emerging labour trends — such as the availability of global online labour, spurred by the sharing economy, crowd sourced employment, and the automation of jobs — that have the potential to reshape labour demand and supply, immigration, as well as talent strategies that are no longer defined by the physical workplace. And while international trade agreements like the Trans-Pacific Partnership (TPP) will create new opportunities for Canadian businesses, they may also expose weaknesses in our own industrial sectors.

The recipe for success in this dynamic and evolving economic environment is dependent on our ability as a nation to increase investments in innovation, equip our workforce with relevant skills, produce higher-value goods and services, and expand trade. While Canada's ICT sector is a \$74¹ billion per year industry on its own, it's the value-added contribution it provides to other industries that make it a strong driving force behind our nation's economic growth and prosperity. With a favourable political and business environment, and a flourishing digital ecosystem, Canada has strong potential to become a leader in the global economy.

Canada's leadership in the global economy will depend on its ability to capture the benefits of emerging digital trends. In the next 3-5 years, the adoption of smart and connected technologies, such as the Internet of Things (IoT), will continuously reshape all industrial sectors, including manufacturing, financial services, health, transportation, essential services and cities, as well as media and creative industries. Research by Cisco, among others, estimates the size of the global IoT economy to exceed \$19 trillion by 2020.²

Despite the importance of technology adoption to business sector innovation and competitiveness, Canada's adoption rate remains low compared to our international counterparts. One of the principal reasons for this is the lack of skilled workers who can assess and implement technological innovations.³ This is particularly vital for small and medium-sized enterprises (SMEs) that acutely need skilled digital talent, but have limited means to train or find a job-ready workforce to respond to the fast changing reality of the global economic landscape. It is, therefore, critical that skilled digital talent is available so that companies can effectively adopt and leverage digital technologies.

Canada's digital economy⁴ currently employs 877,470 ICT professionals spread throughout all sectors the economy. The growth in digital jobs has outpaced the overall economy in the last two years by over 4 to 1, leading to a strong demand of 182,000 skilled ICT workers by 2019. Unfortunately, the domestic supply of

¹ The Information and Communications Technology Council (Summer 2015). *Strengthening Canada's Digital Advantage: Quarterly Monitor of Canada's Digital Economy*.

² Cisco (2014). *The Internet of Everything — A \$19 Trillion Opportunity*.

³ Information and Communications Technology Council (June 2013). *Canada's Mobile Imperative: Leveraging Mobile Technologies to Drive Growth*.

⁴ This encapsulates the widespread employment of ICT workers across all sectors of the economy and the total labour output of the ICT sector.

ICT graduates and workers will be insufficient to meet this demand. Engaging all available talent, including women, youth, immigrants, Indigenous persons and persons with disabilities, will be critical in mitigating the talent shortage. We also need to ensure that new graduates have the practical knowledge and skills they need to enter the workforce quickly and add value to Canadian businesses.

The purpose of *Digital Talent: Road to 2020 and Beyond* is to provide practical recommendations that will position Canada's talent as a comparative advantage in the increasingly global and rapidly evolving digital landscape. This strategy is unique in that it targets both the "vertical" ICT industry and the "horizontal" adopters of ICT and digital technologies, both of which depend on a strong, vibrant digitally-savvy workforce. This strategy is not intended to supplant digital strategies developed by provincial governments (such as British Columbia's technology strategy) or other associations representing sub-sectors of the ICT vertical (such as the Entertainment Software Association of Canada's talent strategy). Rather, it supports and reinforces the elements of those other strategies that we believe should be prioritized at a national level.

This strategy contains practical recommendations aimed at building Canada's digital talent base for today and the future. Those recommendations are organized according to the following categories:

1. Nurturing a strong youth talent pipeline;
2. Leveraging Canada's diverse talent;
3. Supporting workforce upskilling to enhance digital adoption;
4. Attracting and retaining global digital talent;
5. Strengthening digital literacy and digital skills for Canadians;
6. Fostering digital entrepreneurship; and
7. Building labour mobility pathways to fill high demand occupations.

Implementing this strategy will contribute meaningfully to the promise of real change for Canadians. It will ensure that SMEs, the engine of our economy, and all Canadian businesses are well equipped to respond to a rapidly evolving global economy. Moreover, it will ensure that Canadians, particularly youth, will be well prepared to succeed as skilled workers and entrepreneurs in our increasingly digital and global economy. Making the right investments and policy choices has never been more critical for Canada.

CREATIVE MINDS IN THE SMART ECONOMY

NATIONAL LEADERS IN ACTION SUMMIT ON YOUTH & EDUCATION

BARRICK SALON (4TH FLOOR), MUSEUM OF NATURE, OTTAWA, ON

MARCH 9, 2016

10:30 AM – 4:30 PM

9:45 AM	REGISTRATION & NETWORKING
10:30 AM	Summit Opening (MC)
10:35 AM	Summit Welcome Namir Anani, President and CEO - ICTC Tanya Woods, Vice President, Policy - ESAC
10:45 AM	Panel 1 – Setting Context – From Education to Jobs Moderator: Sandra Saric, Vice President – Talent Innovation - ICTC <ul style="list-style-type: none"> • Paul Thompson, Associate Deputy Minister, Skills and Employment Branch - ESDC • Colin McKay, Head-Public Policy and Government Relations - Google • Mohammad Nejad-Sattary, Senior Director, Technology - Capital One • Marc Seaman, Vice President of Education - Microsoft Canada • Anna Lambert, Director of Talent Acquisition - Shopify
11:40	Summit Overview (MC)
11:45 AM	NETWORKING LUNCHEON KEY ADDRESS – THE HONOURABLE KIRSTY DUNCAN, MINISTER OF SCIENCE
1:15 PM	MC comes back to kick start afternoon
1:20 PM	Panel 2 Panel Discussion – The Digital Skills Pipeline Moderator: Tanya Woods – Vice President, Policy - ESAC <ul style="list-style-type: none"> • Tim Winkelmans, Director, Graduation, Skills, and Distance Learning Learning Division - BC Ministry of Education • Dr. Sacha Noukhovitch, Executive Director and Editor-in-Chief - STEM Fellowship, Toronto District School Board • Kate Arthur, Executive Director & Co-Founder - Kids Code Jeunesse • Nathalie Verge, Conseillère principale, Affaires corporatives - Ubisoft
2:15 PM	Break-out Discussion Theme: The Present: What's working now? What are your organizations doing?
3:00 PM	REFRESHMENT/NETWORKING BREAK
3:15 PM	Break-out Discussion Theme: The Future: role of government, industry & education
4:00 PM	Synthesis and Action (MC)
4:15 PM	CLOSING REMARKS
4:30 PM	SUMMIT ADJOURNS

Cook, Jeannette MTIC:EX

From: Jacobson, John MTIC:EX
Sent: Monday, March 7, 2016 9:27 AM
To: Greg Caws; Morel, David P MTIC:EX
Cc: Coad, Jeremy A MTIC:EX; Butterworth, Kevin MTIC:EX; Dean Prelazzi
Subject: RE: s.13

The educational experience needs to provide perspective more than skills, in my view. In looking at the list of industry companies, I'd suggest adding either Phemi or Vizier – both are “big data” (structure-free data) analytics companies. For young people, “coding” should be about the thought process of getting computers to do what they want, unconstrained by the limitations imposed by today's fashions. Unfortunately, there's still a pervasive “of course your data is structured” mindset that even the most modern coding platforms impose that may not be a core approach by the time that anyone learning coding now in K-12 gets to doing actual code work, should that be where they end up.

From: Greg Caws [mailto:gcaws@bcic.ca]
Sent: Monday, March 7, 2016 9:03 AM
To: Morel, David P MTIC:EX; Jacobson, John MTIC:EX
Cc: Coad, Jeremy A MTIC:EX; Butterworth, Kevin MTIC:EX; Dean Prelazzi
Subject: Re: 's.13

Hi David,

We've had some further thought and have come up with the following:

A. Per my last email:

Things you need for the company representative:

1. They need to have coded
2. They need to be raising or have raised kids in BC
3. They need to know about training or teaching
4. It would be preferred if they knew about how to teach instructors

There are two people that come to mind immediately:

s.22

C. Companies to consider in order of preference:

1. BCIC (Dean Prelazzi would be our representative and he has worked with BC Gov't committees) dprelazzi@bcic.ca
2. MacDonald Dettwiler
3. Hootsuite
4. Slack
5. Global Relay
6. Bench

Greg

Greg Caws
President and CEO



BC Innovation Council
Blog | Twitter | Facebook
604.602.5259
www.bbic.ca

From: "Morel, David P MEM:EX" <David.Morel@gov.bc.ca>
Date: Friday, March 4, 2016 at 7:19 AM
To: "Jacobson, John MTIC:EX" <John.Jacobson@gov.bc.ca>, Greg Caws <gcaws@bcic.ca>
Cc: "Coad, Jeremy A MTIC:EX" <Jeremy.Coad@gov.bc.ca>, "Butterworth, Kevin MTIC:EX" <Kevin.Butterworth@gov.bc.ca>
Subject: FW: Terms of Reference- K12 Coding Advisory Committee

Hi John and Greg

I am meeting with Bill today and will discuss with him.

David

From: Winkelmans, Tim EDUC:EX
Sent: Friday, March 4, 2016 12:28 AM
To: Morel, David P MTIC:EX
Subject: s.13

Hi, David
s.13

Tim

Cook, Jeannette MTIC:EX

From: Morel, David P MTIC:EX
Sent: Friday, March 4, 2016 7:20 AM
To: Jacobson, John MTIC:EX; Greg Caws
Cc: Coad, Jeremy A MTIC:EX; Butterworth, Kevin MTIC:EX
Subject: s.13
Attachments:

Hi John and Greg

s.13

Appreciate your thoughts on who should be on this committee. From industry their initial thoughts are:

s.13

I am meeting with Bill today and will discuss with him.

David

From: Winkelmanns, Tim EDUC:EX
Sent: Friday, March 4, 2016 12:28 AM

