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How are we feeling?



We have heard a lot of information today – how are we feeling now?

One or two words – yell them out

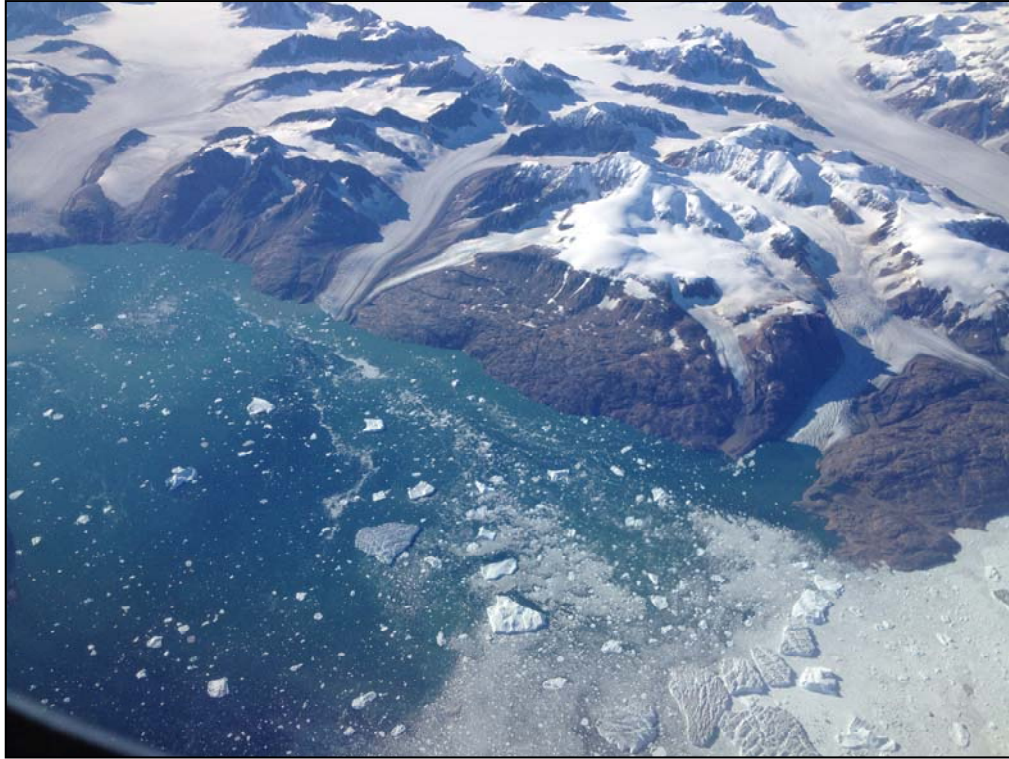
Write them on the flip chart – people said energized, confused, informed, curious.

Let's get practical.



The Plan

1. My perspectives
2. What are people saying about PIAAC?
3. PIAAC for planning and practice
4. What does it mean to us?



Piaac is a 10,000 meter view of adult competencies around the world.

This is a photo I took a week ago, out the window of an airplane flying above the arctic.



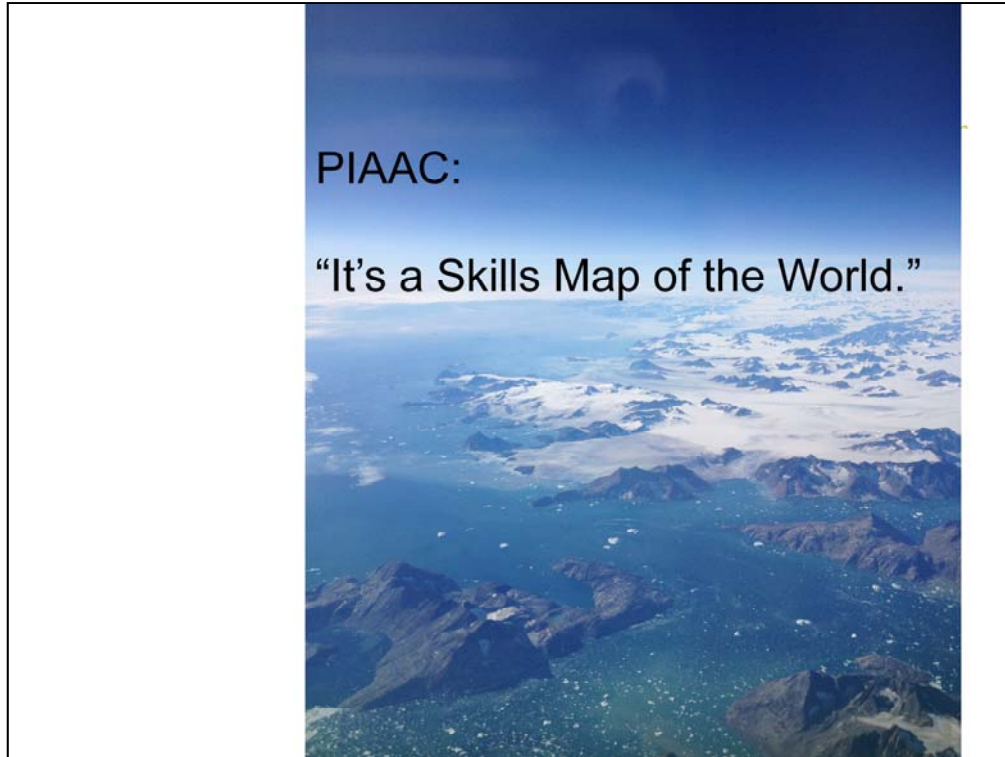
Some data about that photo. Turns out we were at over 10,000 meters, and over Greenland.



From 10,000 meters up, we can see amazing patterns and flows. Features and bumps and rocks and waters. You can even see the curve of the earth. That's amazing.



This is the Rockies from 10,000 meters – that 30,000 foot view – from my flight coming to this conference. Scattered clouds, but we can still see a the mountains.



And that's how I feel about PIAAC

It's a view of the world that is amazing! You can see patterns and features that you can't see on the ground. You can see the curve of the earth from PIAAC in all those charts and graphs.

As the man in the video we all watched "Boost skills for jobs and well-being" said, "It's a Skills Map of the World."

As I like to think of it, you can see a lot from 10,000 meters, but you can't see your mom. You can't see the workers in your community.

You might not even see your local community. But we can see Canada, and we can see a snapshot of your province. I

Wow, so high up and beautiful. However they get that data, those charts, the snapshots of the skills of people of the world – they amaze me.

But I don't live or work in the sky... My 30,000 foot / 10,000 meters views of the world, of any situation, are short lived.



Down here on the ground. I need something more like a ladder. So I can see over the wall. And I can get a little higher up.

Doesn't have to be a ladder. Could be lots of things. You've been here all day, what do you need data about?



Metaphors please.
What is PIAAC for you?
What do you need?



Practical skepticism

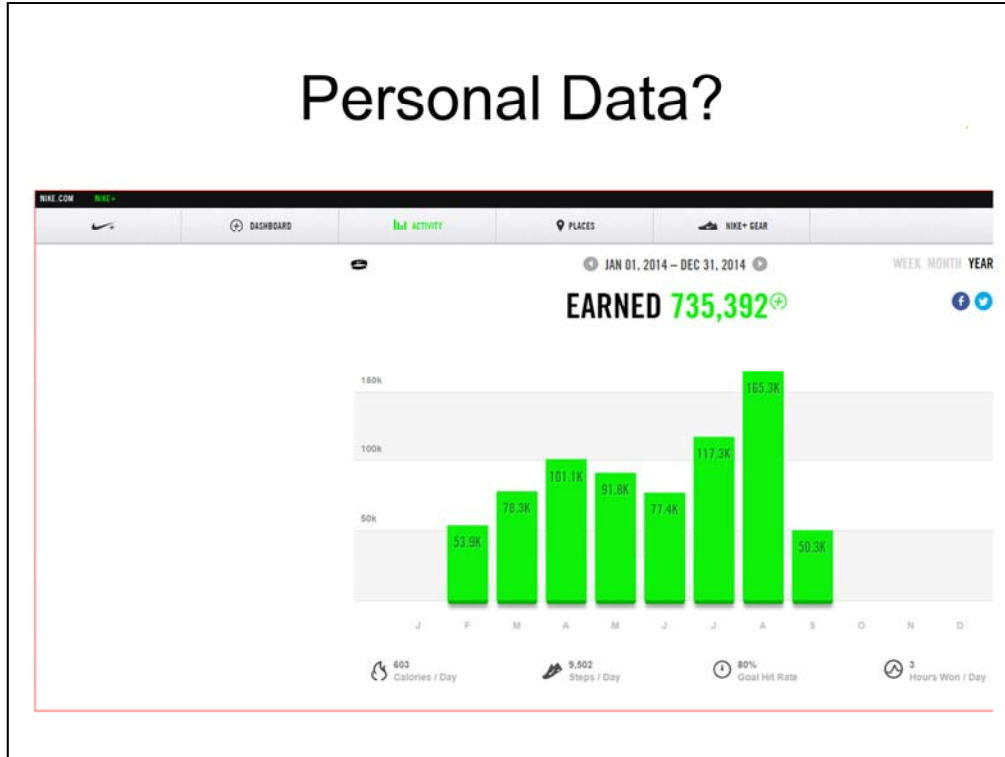


Being practical, I have to be skeptical.

Recognize what you know from experience, not starting from an empty head or blank page. Lived work experience counts...

Learn together, learn from peers

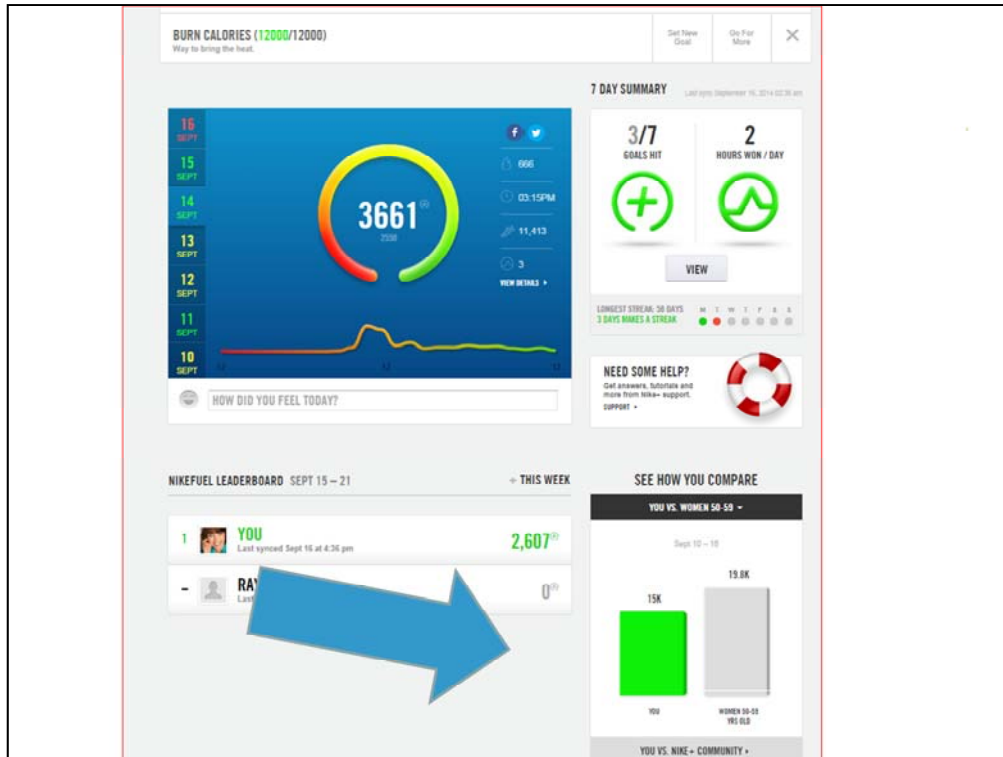
Personal Data?



I thought it might be useful to find an analogy at the opposite scale. Personal data. I wear a Nike Fuel Band that measures my activity – steps I take, minutes I am in motion, calories I burn. Some of you might wear one, or maybe a FitBit or another monitor. Person data is becoming very popular now that it is widely available.

I wear it because I found I am a lot less active since my big dog died, and I don't go for walks without a reminder that I need to move.

This is a graph of my data so far for 2014. What can we see from this data? Well for starters I can see that I am more active on vacation – April, July and August were by best months.



This graph shows just on day's activity, but over in the bottom right corner, we see me compared on that day to all the women in my age group around the world on that same day. I met my goal, but I am behind the average of women between 50 and 59 who have and wear this device, and who used it today. I set my goal as 10% above the average for this group over a long time. I figured that women wearing this thing are either recovering from a heart attack or training for a marathon, and I am about in the middle of that cohort.

So how is this like PIAAC? Micro data makes sense to us. It's about me. Or maybe my students, workers I know, places I can see.

It seems I ascribe too much meaning to this micro level data.... I was convinced of this by my husband, who is a researcher and a scientist, and a data nerd.

This is comparative data but not good data.

Who has a fuel band? What are they doing? Who reports? This can be a useful motivator, or a competitive point, but maybe not data to take to the bank.

It is always important to question the data and be careful about ascribing meanings that might not be there, or weren't intended.

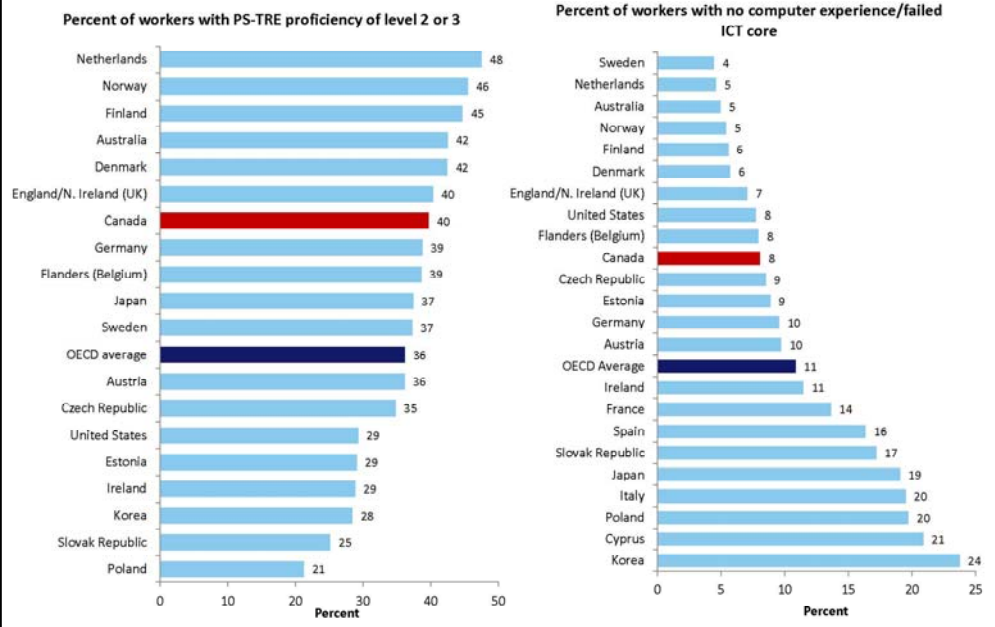
So much data



I showed you this to be nice.

Skills in the labour force

ICT Engagement and PS-TRE — Percent and proficiency of population aged 16 to 65 who are employed, OECD average and countries, 2012



I could have showed you this one, from PIAAC.

So much data



But let's just agree, there is so much data to digest and understand. So much puzzling data, how can a practical person make sense of it.

I am not a policy analyst, what can I do with a 10,000 meter view?

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Playlist (13 talks)

Making sense of too much data

It's the age of Big Data. But what, exactly, do we do with all this information? These talks explore practical, ethical -- and spectacularly visual -- ways to understand near-infinite data.

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LAND-ROVER

Playlist (13 talks): Making sense of too much data

Hans Rosling
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What we learned from 5 million books
 Have you played with Google Labs' Ngram Viewer? It's an addicting tool that lets you search for words and ideas in a database of 5 million books from across centuries. Erez Lieberman Aiden and Jean-Baptiste Michel show us how it works, and a few of the surprising things we can learn from 500 billion words. (Filmed at TEDxBoston.)

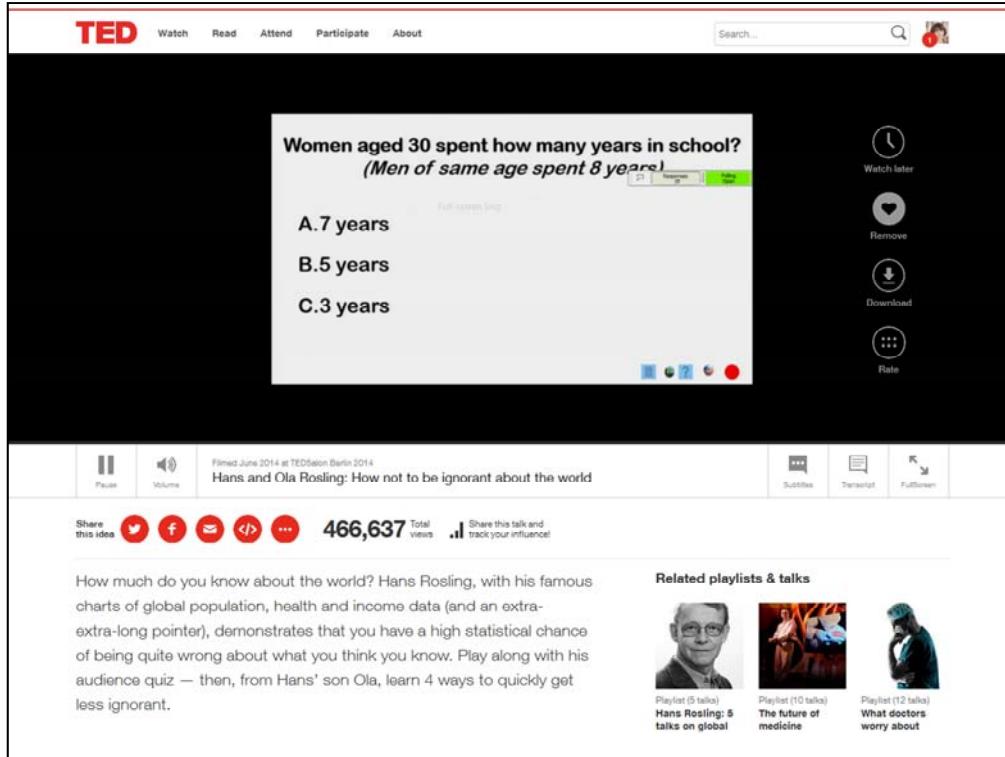
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So I turned to TED talks to help me figure out what to do with so much data and I found this playlist of 13 talks called MAKING SENSE OF TOO MUCH DATA.



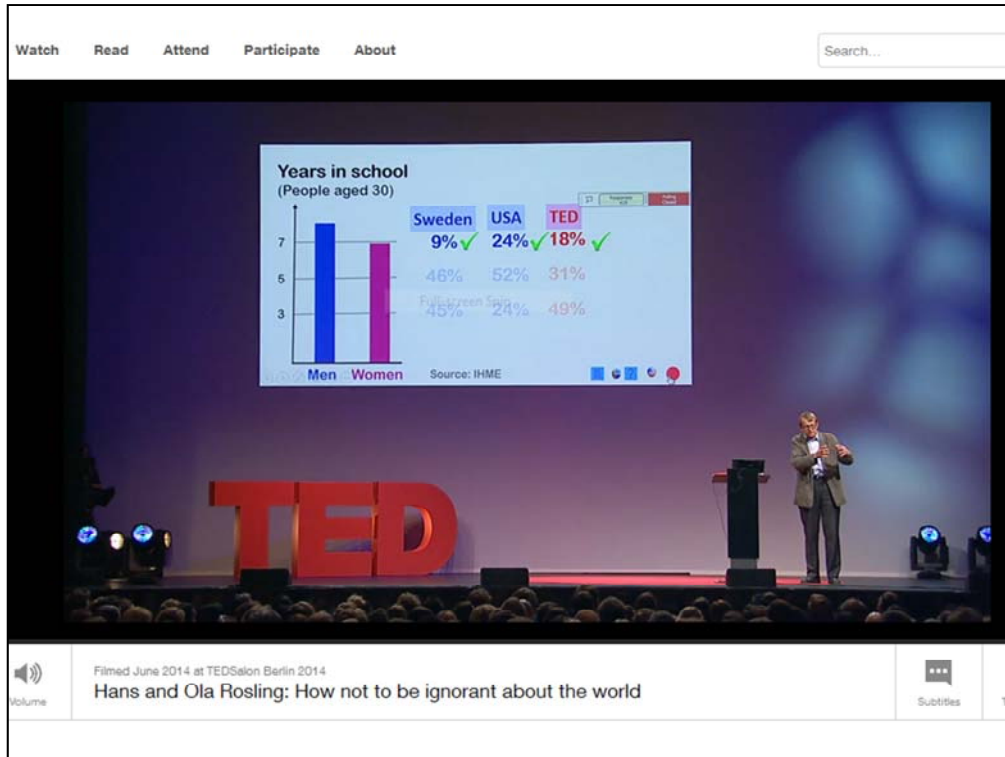
I found this great talk called How not to be ignorant about the world by Hans and Ola Rosling, a Swedish father-son science duo.

They demonstrate how our instincts about the big issues in the world might be quite wrong.

Let's look at this question – Around the world, today, women who are aged 30 spent how many years in school?

- A. 7 years
- B. 5 years
- C. 3 years

Show of hands? And remember men of the same age spent 8 years in school.



The correct answer is 7 years.

But like the audiences the Roslings have quizzed, our group mostly too 3 years, some people said 5 years and only a handful chose the correct answer of 7 years.

Why?



Hans and Ola Rosling say
...we have misconceptions that are
reinforced by

1. Personal Bias
2. News Bias
3. Intuition

We over-generalize.

Hans and Ola Rosling say
...we have misconceptions that are reinforced by

1. Personal Bias
2. News Bias
3. Intuition

They also say we can correct this with 5 steps

Turn our misconceptions upside down to increase our chance of choosing the correct answer.

- 1 Everything is getting worse. (Most things improve)
2. Poor countries are suffering greatly... (we live in a one hump world)
3. Countries have to get rich to deal with social problems – (success comes from first social actions, then wealth) Think education
4. We need to be afraid of (sharks kill very few people)



A TAILOR-MADE program: Tracy Defoe, a workplace systems coordinator for the Open College, and ESL teacher Ruth Farrell, have helped enhance communication between English and Chinese-speaking employees at Teleflex Canada Ltd.

1989-90

Listening, speaking, cross-cultural communication, writing, reading and math for SPC

I have been at this along time.

This is a newspaper photo from August 1990 about a program I did with my late and much-missed colleague Ruth Farrell.

Work Skills Program (soon to be BASIC skills)

August 1990 (1989 and 1990)

We taught listening, speaking, cross-cultural communication, writing, reading and math for SPC (Statistical Process Control).

Of those only reading and math are included in PIAAC because the others are too difficult to measure reliably across many languages around the world.

We taught what was needed in the workplace. All of these are essential, foundational, and even renewable skills. Don't let the PIAAC lens be the only lens you see the world through.



This is a not very flattering photo of me in one of my current workplace learning groups.

We have evolved to an embedded learning strategy – the group learns Continuous Improvement (CI) aka Lean Production together.

This book is a standard basic text for some of the background knowledge in Lean. It is required reading for a certification program commonly for engineers and supervisors and managers.

We read the book together. We write. We present ideas. We learn from DVDs, and guest speakers and tours. But mostly, we work on real, practical problems and apply the principles and methods of CI to their workplace. Problem-based learning is high in integration, and in motivation.

Which of the PIAAC assessed skills are here? And in what ways are we outside the measured skills in real lived work and learning?



This is a photo of one of those groups currently learning CI together in a program they call Kaizen Club.



People want to look for patterns. It is a way we find meaning in the world. These are Celtic symbols for the sun, carved in rock in Ireland more than 4,000 years ago. You can see and touch these patterns and wonder what they mean and who made them.



Here's the same pattern, but you can't see it from the ground. You would need to get up in the air to see the whole pattern. We often need that higher perspective to make sense of what we see and experience. PIAAC is a tool, a skills map of the world to help us see things we might not see – and to compare in ways that might influence policy and action.

Story from a conference



I'm going to tell you a story from a conference I attended a few months ago in Ottawa. It was a skills conference and a university academic presented his findings from digging down into the PIAAC data for Canada. He was interested in the skills data for a particular group:

- People who had taken the PIAAC assessment
- And had self-identified as journeymen tradesmen
- And had reported their wages.

The researcher's questions were around the PIAAC assessed skills of this small sub-group of Canadians – was there a correlation between their skills and their wages?

I watched the presentation, listening for the ways the researcher presented PIAAC data and its assumptions. And as he went through the findings, he said these words that made my hand shoot up in the air, before I even realized I had raised it. He said, "Literacy doesn't matter." Wait, wait, what? I was witnessing the birth of a sound bite that I was worried I would have to live with for years. So I asked for a careful explanation: Of the self-identified journeymen trades people, who are of course some of the best educated and trained workers – and are workers who don't "lose it" because they "use it" everyday – of those PIAAC respondents, it seemed that their NUMERACY scores was higher correlated with their relative wages than their reading scores on PIAAC.

This is quite different from suggesting that reading doesn't matter – this is saying numeracy really matters in the trades, which he quickly conceded. I hoped it was before anyone in the room had tweeted that other observation. And then, in this next point the researcher presented the findings for the Aboriginal Journeymen Trades People who took the PIAAC in Canada and said that for this admittedly small group, "Literacy mattered even less." Hand up again, we worked back from that broad and misleading observation to the idea that the data said math scores were correlated with wages in a more pronounced way for Aboriginal respondents to PIAAC. What does that mean? On the surface it makes sense that trades (and we don't have details about which ones), require math and that some pay higher wages. Wages vary across trade specialities, and across regions. That makes sense.

I want you to remember this story. Don't extrapolate or make a conclusion from the PIAAC data that goes beyond the story the data can tell. And if you hear someone do that, or someone says something that makes no sense at all, like "literacy doesn't matter" – please put up your hand and ask a question that walks back through the facts. Sound bites have a life of their own – it matters that we get this right this time.



Know PIAAC so you can ask good questions.



Let's get a little closer to the ground, this is a photo of Vancouver, where I live, as we make the approach for a landing. A thousand feet up....

Owner and Managers



"I am worried about the PIAAC findings for Alberta," – said no employer ever.



Employers are worried about the world market. The Canadian Dollar.

Owner and Managers

Cash Flow
Competition
Suppliers





And they are worried about wasting money.

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Large digital-skills divide among Canadian adults, OECD study shows

JILL MAHONEY
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Canada is facing a gaping digital divide, with large swaths of the adult population scoring at both the highest and lowest levels on an international test of computer problem-solving skills.

The survey found that Canada had the second-highest proportion of adults who excelled on a test that measured participants' abilities to complete multi-step tasks using computers. At the same time, the country lagged near the bottom of the pack for the proportion of respondents who did poorly on the assessment.

International Business News
 Report on Business

If they have heard of PIAAC, they might have read about it on-line or in the newspaper. This is the only article of any size I could find reported in the business section.

“It tells us we’ve got some work to do, particularly in the areas of numeracy, and we always want to do better in literacy as well. But we’re competitive.”

Jeff Johnson, Alberta’s Education Minister and chair of the Council of Ministers of Education, Canada.
Oct. 8 2013

They might have heard your then-Education Minister say this. And they likely remember the last part – “we are competitive.”

And they might have thought – “I don’t hire those people who have low skills.”

What are employers saying about PIAAC?

Nothing.

Employers are saying nothing about PIAAC.

Before I leave the topic of employers, let me pass on this observation. I find it is a good idea to think of everyone as a learner.

Business owners are learning all the time. Often under great pressure. And often they don't have a skills profile that is very different from their employees, they just have more opportunities to meaningfully learn very important things.

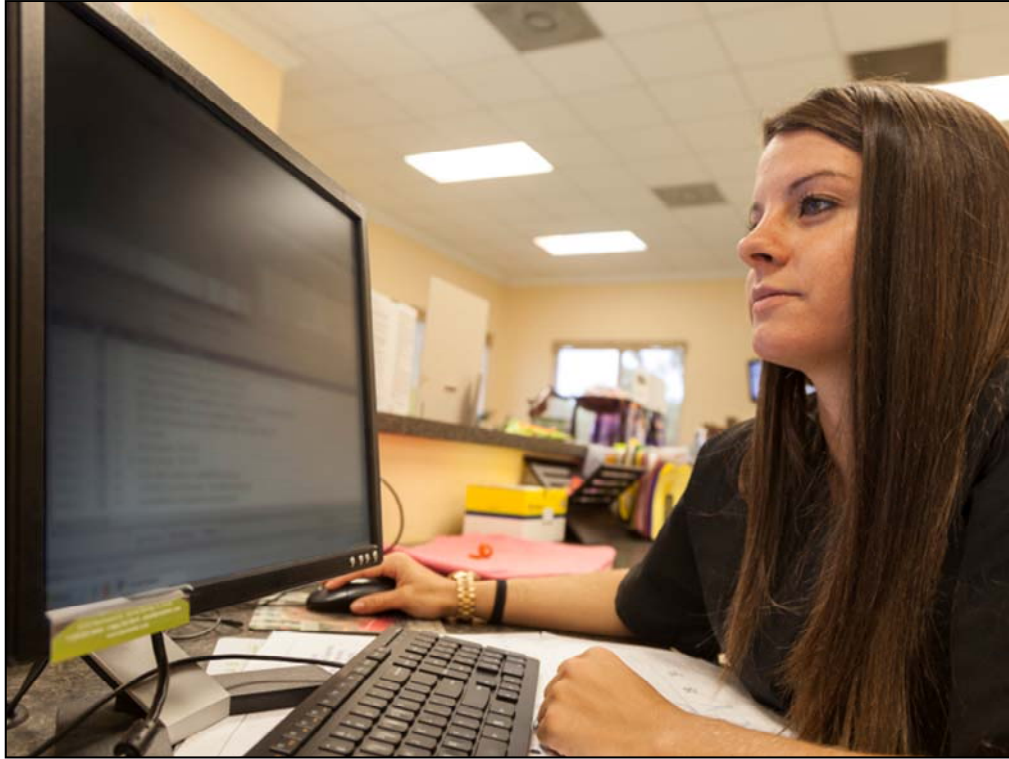
Work goes on





What are workers saying
about PIAAC?

Not much – ok, nothing.



That data on PS-TRE Problem-solving in a technology-rich environment seems to be in tune with how people are working, but workers aren't yet talking about it.

Work goes on





And work is close to the ground.

What about planning?



Who does need and use all that PIAAC info?

Planners

Govt departments

Systems

Anyone who wants to understand the snapshot of better skills for work and well-being...



Planning is about finding those roads that lead to the future we want to reach.

What about our practice?

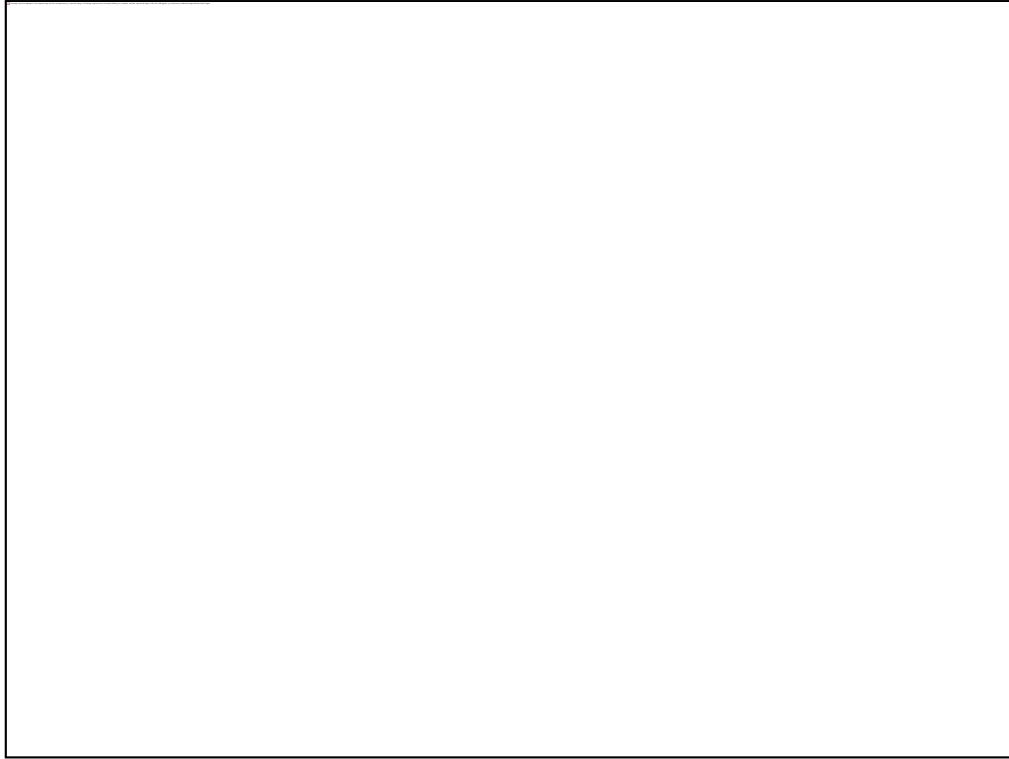


Yes, know the data and be informed.

If you didn't pay attention to technology... Do that.



On the ground, time is always short.



And that road always takes some unexpected turns. We have to deal with curves in the road.



If you a workplace educator ... Your close to the ground is about people. We go back to good practice. People hire me to do my best work.

So? My PIAAC Action Plan

- Be informed, learn
- Get into the discussion
- Ask questions
- Be a good resource, teach others.

If you leave here ready to do this, and you can teach others about PIAAC, especially those who make policy and plot the course for industry – that is great.

So? Will I change my practice?



I think PIAAC data might show you where to set up your ladder.



I am always trying to find the ways to balance multiple interests, multiple priorities in workplace learning.

The needs of the learners, the workplace, the community and yes, the country. Especially if you have public funding.

Will I adjust?





That balance can be a dance – a real challenge for practice.

What about
you?





What do you see from up there?

Questions?

