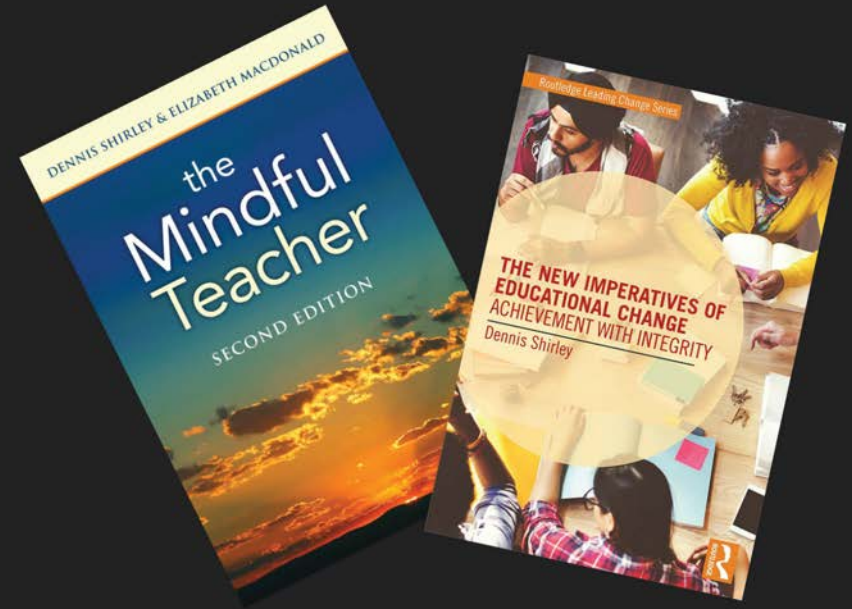


**The New Imperatives of Educational Change:  
How New Innovations are Transforming Teaching and Learning**



10th Global Educational Leadership Conference  
Singapore  
March 27, 2019

Professor Dennis Shirley  
Lynch School of Education/Boston College  
[dennishshirley](#)



## Structure of Presentation

1. Who are We? Where are We Going?
2. Achievement with Integrity
3. Imperatives Old and New
4. Five Practical Steps
5. The Journey Ahead

Who are we?

Where are we going?







**theguardian**

## Cheating found to be rife in British schools and universities

By Richard Adams  
Sunday 14 June 2015

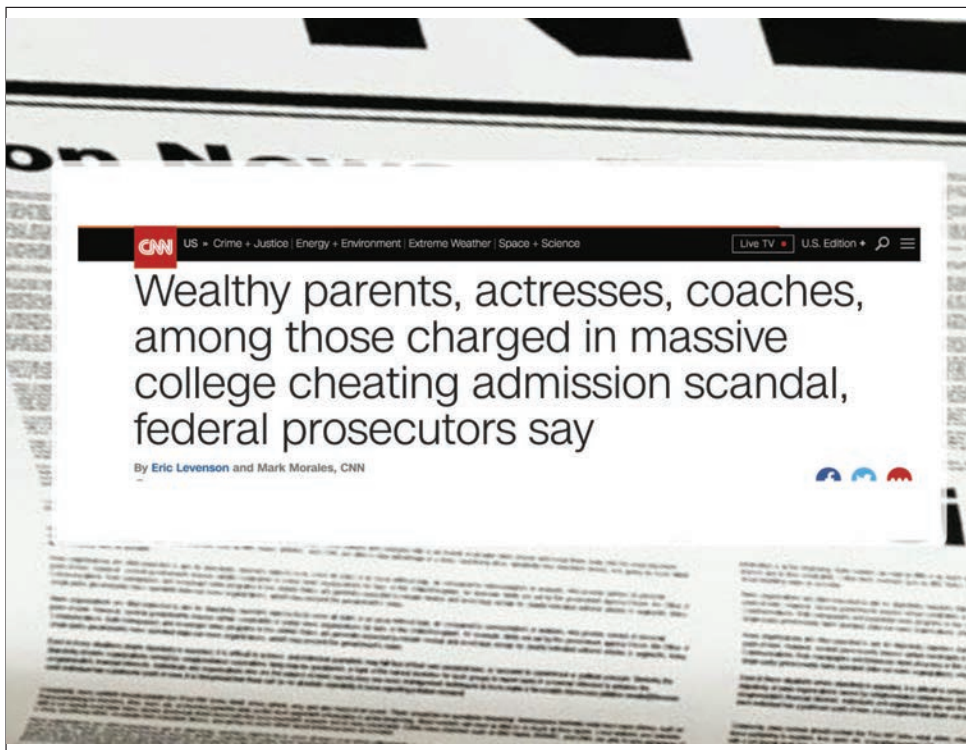
Channel 4 Dispatches uncovers shady practices across the board, from rigged primary school key assessments to 40,000 university students disciplined for plagiarism



**The New York Times**

## Atlanta Educators Convicted in School Cheating Scandal

By ALAN BLINDER  
APRIL 1, 2015



## Achievement with Integrity

## What is Achievement?

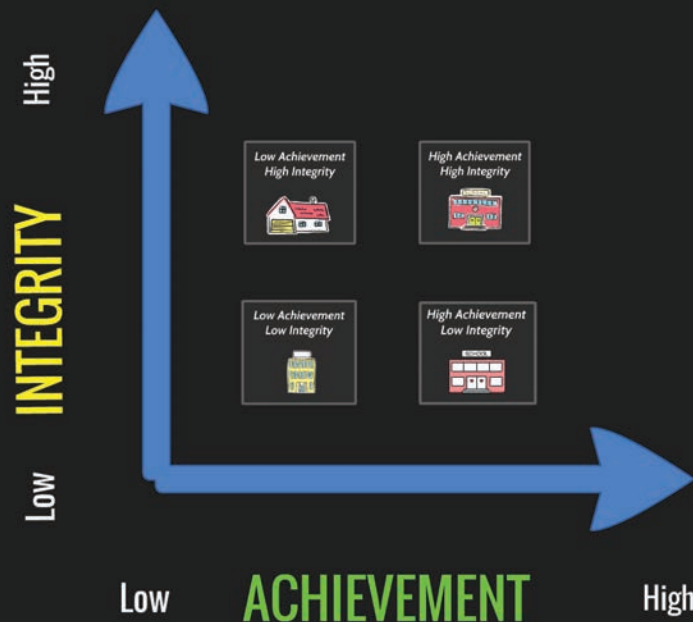
- Achievement as Student Test Score Results
- Achievement as the Attainment of a Worthy Goal
- Achievement as a Result of a School System

## What is Integrity?

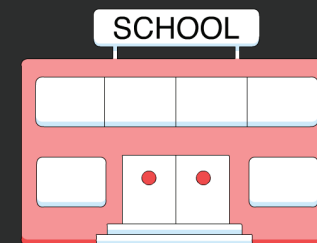
- Integrity as a Personal Characteristic
- Integrity as a Professional Disposition
- Integrity as a Result of a School System

How can we harmonize  
the relationship between  
achievement and integrity?

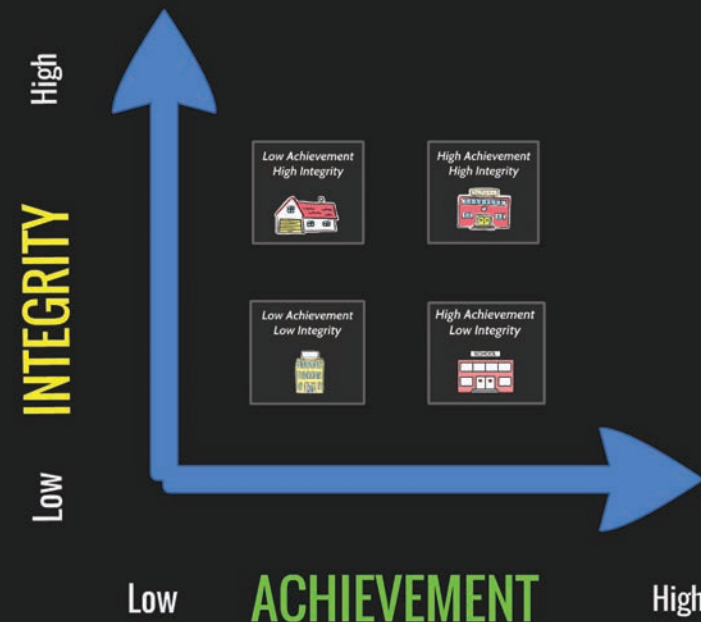
*Low Achievement  
Low Integrity*



*High Achievement  
Low Integrity*



*Low Achievement  
High Integrity*



*High Achievement  
High Integrity*



Imperatives Old and New



# The Old Imperatives

1. Ideological →
2. Imperial →
3. Prescriptive →
4. Insular →
5. Instrumental →

## The Old Imperatives    The New Imperatives

1. Ideological → *The Evidentiary Imperative*
2. Imperial → *The Interpretive Imperative*
3. Prescriptive → *The Professional Imperative*
4. Insular → *The Global Imperative*
5. Instrumental → *The Existential Imperative*

Testing for Fidelity

Achievement with Integrity

## The Old Imperatives    The New Imperatives

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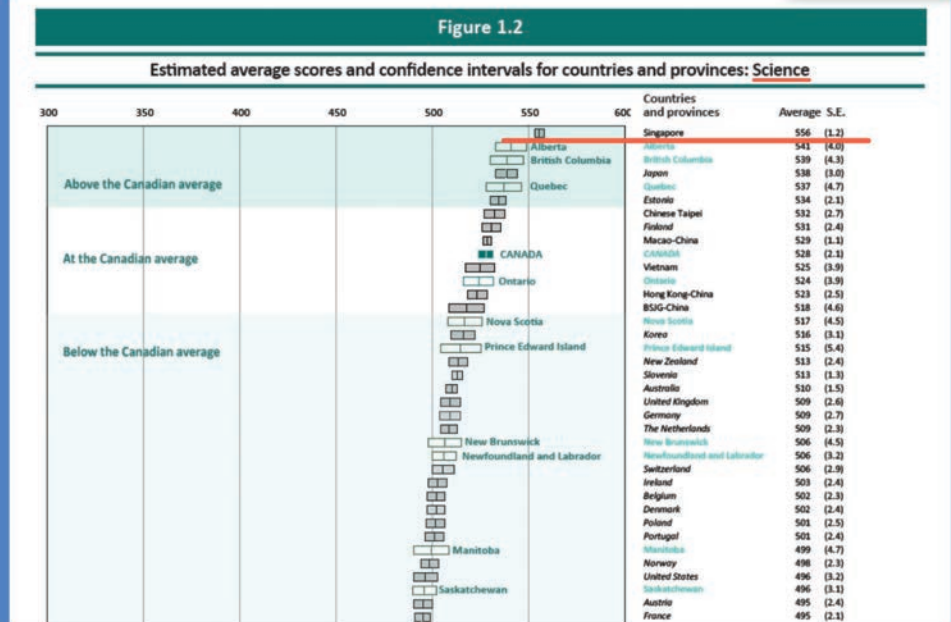
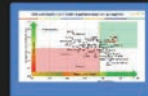
Testing for Fidelity

Achievement with Integrity

# Five Practical Steps

# Let's get practical!

## 1. The Evidentiary Imperative: Study All the Evidence



## Figure 1.2

### Estimated average scores and confidence intervals for countries and provinces: Science





Figure 2.2

Estimated average scores and confidence intervals for countries and provinces: Mathematics

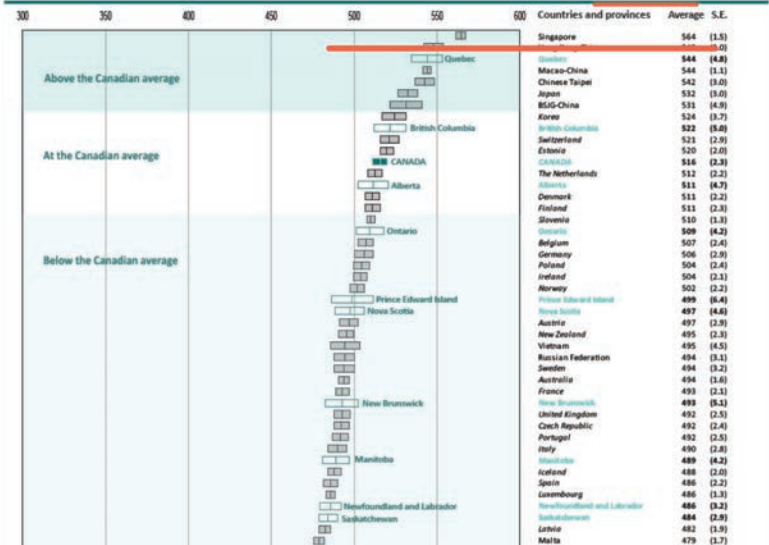


Figure 2.1

Estimated average scores and confidence intervals for countries and provinces: Reading

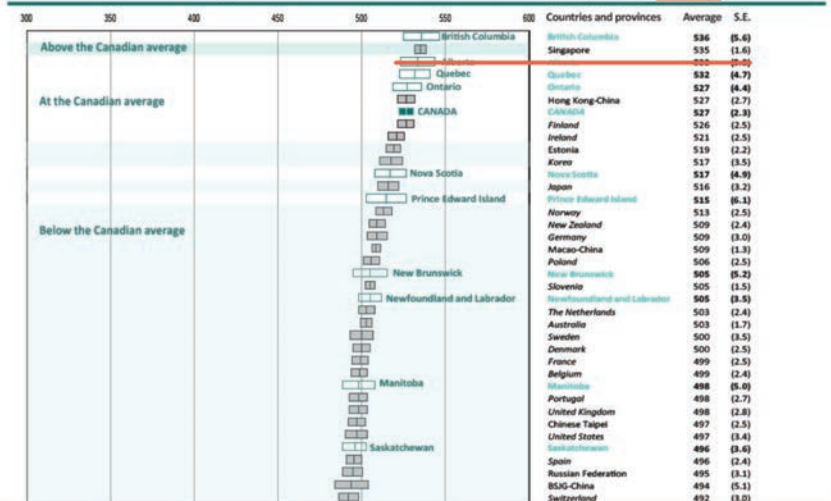
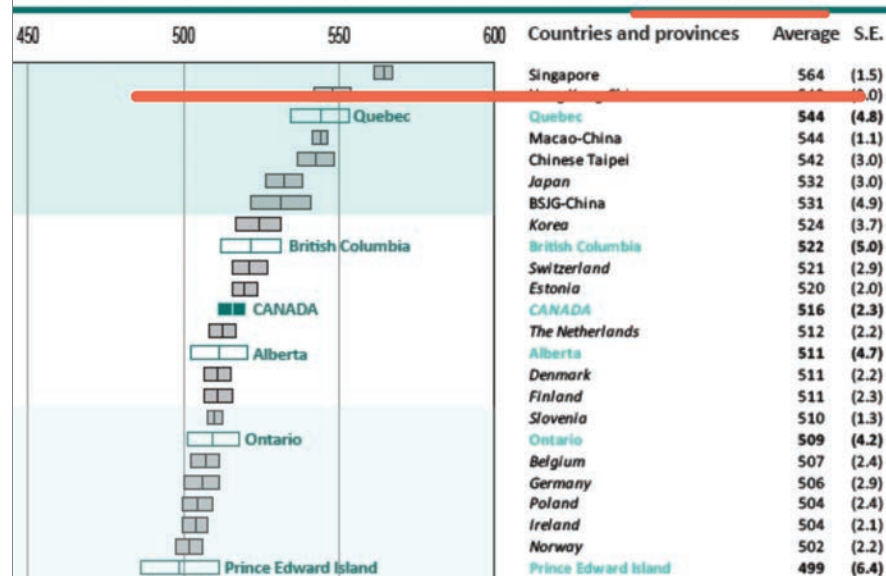
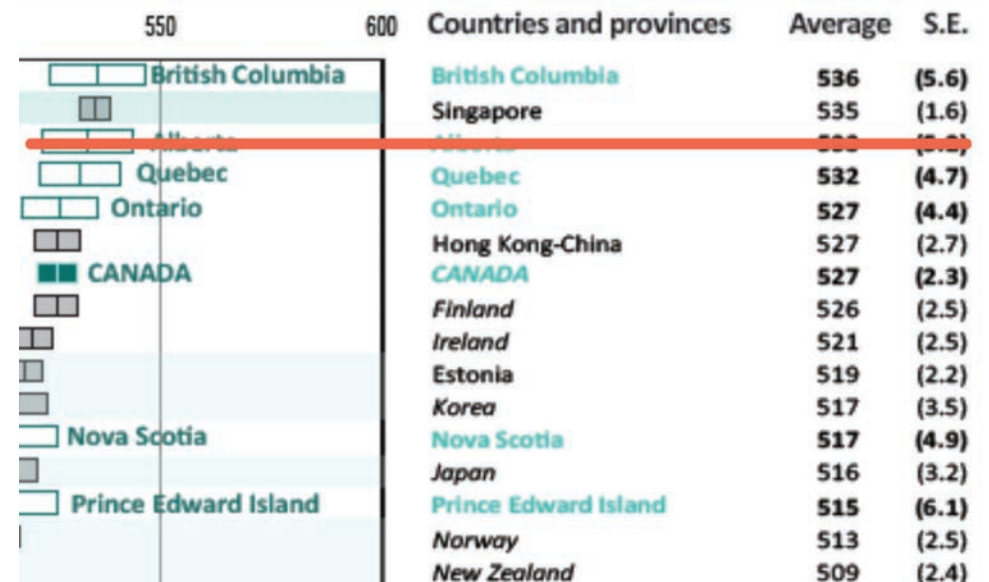


Figure 2.2

Estimated average scores and confidence intervals for countries and provinces: Mathematics

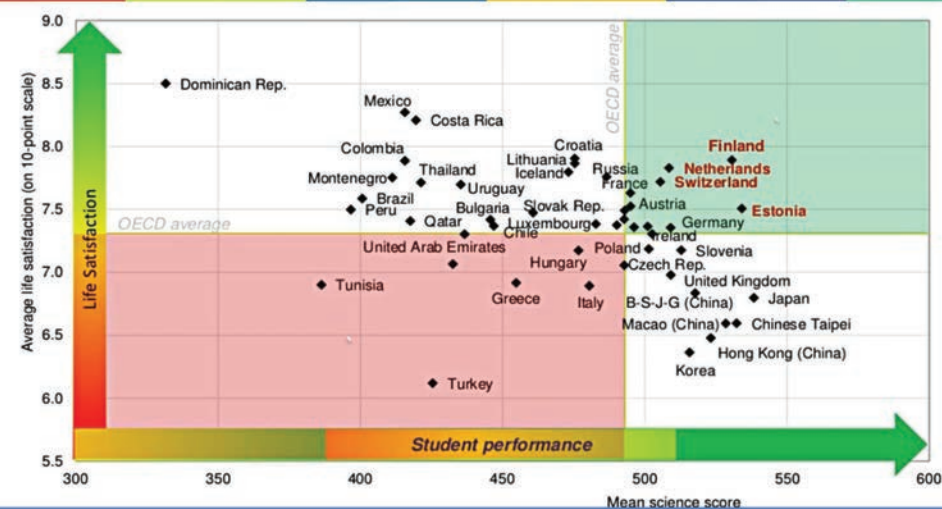


Estimated average scores and confidence intervals for countries and provinces: Reading

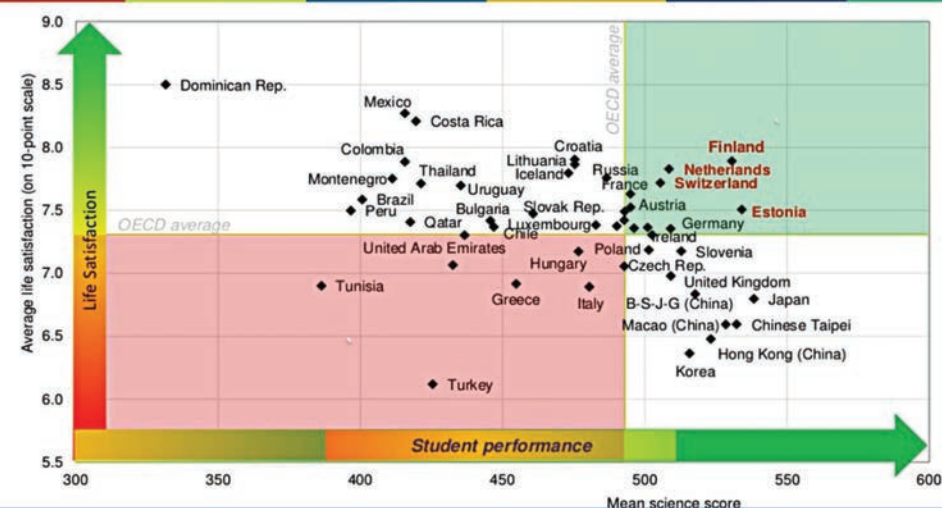




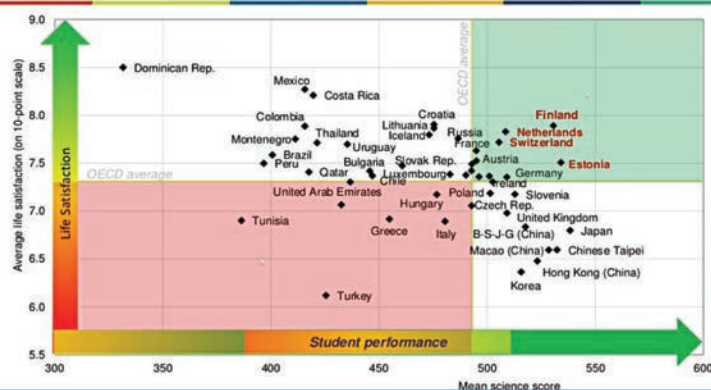
Life satisfaction and student performance can go together **Figure III.3**



Life satisfaction and student performance can go together **Figure III.3**



Life satisfaction and student performance can go together **Figure III.3.3**





# THE STRAITS TIMES.

Singapore students suffer from high levels of anxiety: Study

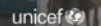


ST VIDEOS

Rank	Country	Income	Education	Health	Life satisfaction	N
1	Denmark	4	8	5	3	0
2=	Finland	3	16	6	11	0
2=	Norway	1	23	4	8	0
2=	Switzerland	6	20	3	7	0
5	Austria	11	21	1	9	0
6	Netherlands	8	30	8	1	0
7	Ireland	10	9	20	13	0
8	Estonia	28	3	13	10	0
9	Slovenia	19	11	16	12	0
10	Latvia	32	4	17	6	0
11	Czech Republic	5	13	9	34	0
12	Croatia	26	5	12	23	0
13	Australia	14	24	27	2	0
14=	Germany	12	28	2	29	0
14=	Greece	38	18	11	4	0
14=	Hungary	21	17	18	15	0
14=	United Kingdom	7	25	19	20	0
18	United States	30	10	14	21	0
19	Portugal	33	19	7	18	0
20	Iceland	2	26	31	19	0
21	Romania	41	2	32	5	0
22	Spain	36	12	10	24	0
23	Sweden	16	29	22	17	0
24	Malta	20		30	14	1
25	Lithuania	27	7	25	27	0
26	Canada	24	14	24	25	0
27	Poland	23	6	33	33	0
28	France	13	35	23	28	0
29=	Belgium	22	36	15	30	0
29=	Luxembourg	9	33	29	32	0
31	Slovakia	25	34	21	26	0
32	Italy	35	22	28	22	0
33	Bulgaria	40	32	26	16	0
34	Turkey	29		34	35	1
35	Israel	37	37	35	31	0



Fairness for Children  
A league table of inequality in child well-being in rich countries



Rank	Country	Income	Education	Health	Life satisfaction	N
1	Denmark	4	8	5	3	0
2=	Finland	3	16	6	11	0
2=	Norway	1	23	4	8	0
2=	Switzerland	6	20	3	7	0
5	Austria	11	21	1	9	0
6	Netherlands	8	30	8	1	0
7	Ireland	10	9	20	13	0
8	Estonia	28	3	13	10	0
9	Slovenia	19	11	16	12	0
10	Latvia	32	4	17	6	0
11	Czech Republic	5	13	9	34	0
12	Croatia	26	5	12	23	0
13	Australia	14	24	27	2	0
14=	Germany	12	28	2	29	0
14=	Greece	38	18	11	4	0
14=	Hungary	21	17	18	15	0
14=	United Kingdom	7	25	19	20	0
18	United States	30	10	14	21	0
19	Portugal	33	19	7	18	0
20	Iceland	2	26	31	19	0
21	Romania	41	2	32	5	0
22	Spain	36	12	10	24	0
23	Sweden	16	29	22	17	0
24	Malta	20		30	14	1
25	Lithuania	27	7	25	27	0
26	Canada	24	14	24	25	0
27	Poland	23	6	33	33	0
28	France	13	35	23	28	0
29=	Belgium	22	36	15	30	0
29=	Luxembourg	9	33	29	32	0
31	Slovakia	25	34	21	26	0
32	Italy	35	22	28	22	0
33	Bulgaria	40	32	26	16	0
34	Turkey	29		34	35	1
35	Israel	37	37	35	31	0

14=	United Kingdom	7	25
18	United States	30	10
19	Portugal	33	19
20	Iceland	2	26
21	Romania	41	2
22	Spain	36	12
23	Sweden	16	29
24	Malta	20	
25	Lithuania	27	7
26	Canada	24	14
27	Poland	23	6
28	France	13	35
29=	Belgium	22	36
29=	Luxembourg	9	33
31	Slovakia	25	34
32	Italy	35	22
33	Bulgaria	40	32
34	Turkey	29	
35	Israel	37	37



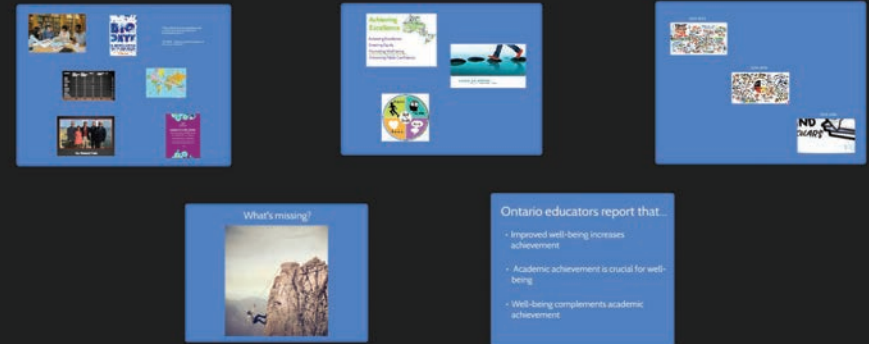
# Let's get practical!

## 1. The Evidentiary Imperative: *Study All the Evidence*

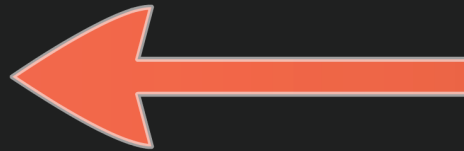


# Let's get practical!

## 2. The Interpretive Imperative *Interpret Intentionally*



## Ask yourself:



1. What evidence do we have on student learning?
2. What evidence do we have on student well-being?
3. What evidence do we have on other things that we care about?



"Today a third of all of Amazon's sales are said to result from its recommendation and personalization systems."

"For Netflix ... three-fourths of new orders come from recommendations."

Student Name	United States History	World Geography	Science	Reading	Writing	Math	Total
John	85	78	92	88	80	75	508
Jane	78	82	85	80	75	70	490
Mike	90	88	80	85	82	78	523
Sarah	82	75	88	82	78	72	507
David	75	80	78	75	70	68	476
Emily	88	85	90	85	80	75	523
Chris	80	78	82	80	75	70	495
Alex	72	70	75	72	68	65	462
Sam	85	82	88	85	80	75	515
Pat	78	75	80	78	72	68	471
Ben	82	80	85	82	78	72	509
Grace	88	85	90	85	80	75	523
Leo	75	72	78	75	70	68	468
Maya	80	78	82	80	75	70	495
Robert	85	82	88	85	80	75	515
Elizabeth	78	75	80	78	72	68	471
Michael	82	80	85	82	78	72	509
Sophia	88	85	90	85	80	75	523
Christopher	75	72	78	75	70	68	468
Madison	80	78	82	80	75	70	495
Anthony	85	82	88	85	80	75	515
Abigail	78	75	80	78	72	68	471
Joshua	82	80	85	82	78	72	509
Evelyn	88	85	90	85	80	75	523
Andrew	75	72	78	75	70	68	468
Oliver	80	78	82	80	75	70	495
Isabella	85	82	88	85	80	75	515
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Matthew	82	80	85	82	78	72	509
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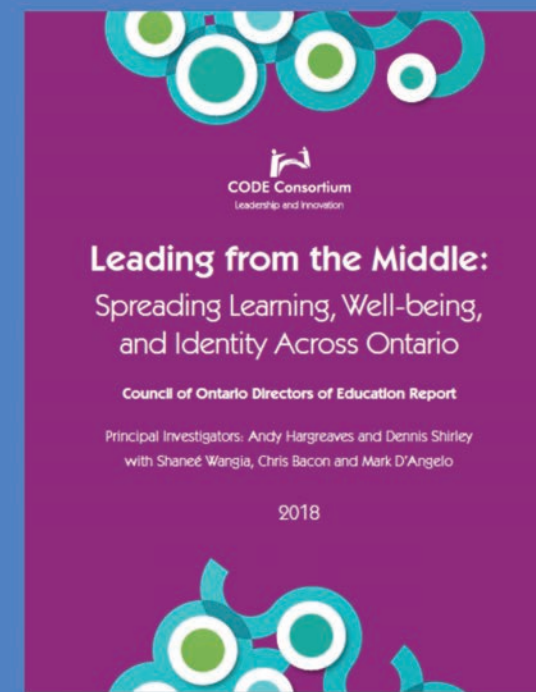
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"For Netflix ... three-fourths of new orders come from recommendations."





Board Name	District Leaders/central office staff	School Administrators Principal/VP	Teachers	Support Staff & Specialist	Total
Catholic	8	4	4	12	28
Catholic	6	7	7	5	25
Public Urban	7	9	5	12	33
Catholic	3	4		14	21
Catholic	12	3	6	5	26
Public Rural	3	6	14	6	29
Public Rural	2	1	1	1	5
Catholic	6	6	8	4	20
Francophone	2	2	4	3	10
Public Suburban	3	4	3	10	20
	52	46	52	72	222



Our Research Team





# Achieving Excellence



Achieving Excellence

Ensuring Equity

Promoting Well-being

Enhancing Public Confidence



## Stepping Stones

A RESOURCE ON YOUTH DEVELOPMENT

2013-2014



2014-2015



2015-2016



[illegible]

2015-2016

**Student WELL-BEING**

**welcoming and safe**

- RELATIONSHIPS
  - TEACHERS
    - TEACHING for students on HOW CAN SUPPORT each other?
    - TEACHERS
      - TEACHING for students on HOW CAN SUPPORT each other?
      - TEACHERS
        - TEACHING for students on HOW CAN SUPPORT each other?
- COMFORTABLE SPACES
- LIFE HELP
  - CREATE A SENSE OF FAMILY LINE AT HOME
- SUPPORTIVE
  - TEACHERS
    - TEACHING for students on HOW CAN SUPPORT each other?
- SAFE AND ACCEPTING
  - TEACHERS
    - TEACHING for students on HOW CAN SUPPORT each other?

**what well-being looks like**

- BRIGHT WELCOMING COLOURS - CLASS
- NATURAL LIGHT
- TEACHERS
  - TEACHING for students on HOW CAN SUPPORT each other?
- SUPPORTIVE
  - TEACHERS
    - TEACHING for students on HOW CAN SUPPORT each other?
- SAFE AND ACCEPTING
  - TEACHERS
    - TEACHING for students on HOW CAN SUPPORT each other?
- PEER SUPPORT
  - TEACHERS
    - TEACHING for students on HOW CAN SUPPORT each other?
- AFFORDABILITY
  - TEACHERS
    - TEACHING for students on HOW CAN SUPPORT each other?
- EFFECT
  - TEACHERS
    - TEACHING for students on HOW CAN SUPPORT each other?
- DISPUTE
  - TEACHERS
    - TEACHING for students on HOW CAN SUPPORT each other?
- LIMITED OLD TECHNOLOGY
  - TEACHERS
    - TEACHING for students on HOW CAN SUPPORT each other?

**obstacles?**

- ALL GENDER
- ACCESSIBILITY for ALL students!
- ELIMINATE gender binary
- PROGRAM THAT MEET MY Experiences!
- BEING COMFORTABLE IN OUR SCHOOLS
- SMALLER CLASS SIZE!
- TOOLS FOR COMMUNICATION
- SAFE AND ACCEPTING
- PEER SUPPORT
- AFFORDABILITY
- EFFECT
- DISPUTE
- LIMITED OLD TECHNOLOGY

[illegible]

# Ontario educators report that...

- Improved well-being increases achievement
- Academic achievement is crucial for well-being
- Well-being complements academic achievement

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- Academic achievement is crucial for well-being
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What's missing?



**Ask yourself:**



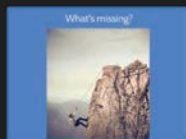
1. What is the relationship between well-being and achievement?

2. What do you *really* think: Do your schools over-emphasize achievement?

**Let's get practical!**

## 2. The Interpretive Imperative

*Interpret Intentionally*



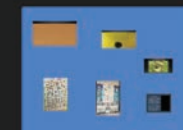
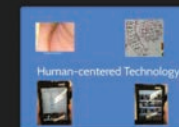
Ontario educators report that...

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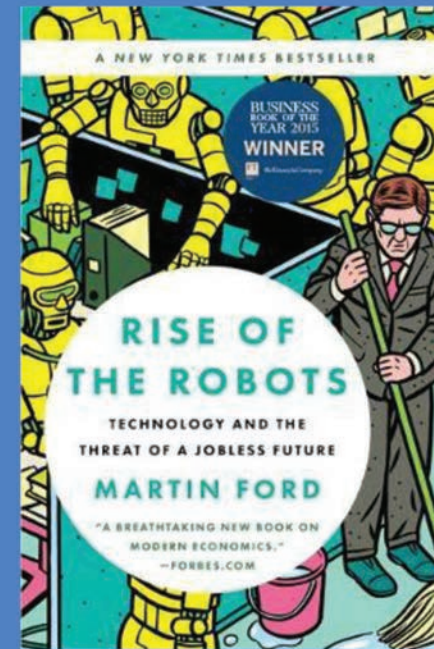
**Let's get practical!**

## 3. The Professional Imperative

*Strengthen the Profession*







"Bridge is able to offer a cost-effective product in some of the poorest communities in the world by emphasizing a lean business model...Through standardization and automation, Bridge has streamlined their operations and has largely removed 'teachers' and 'administrators' from the education process all together."





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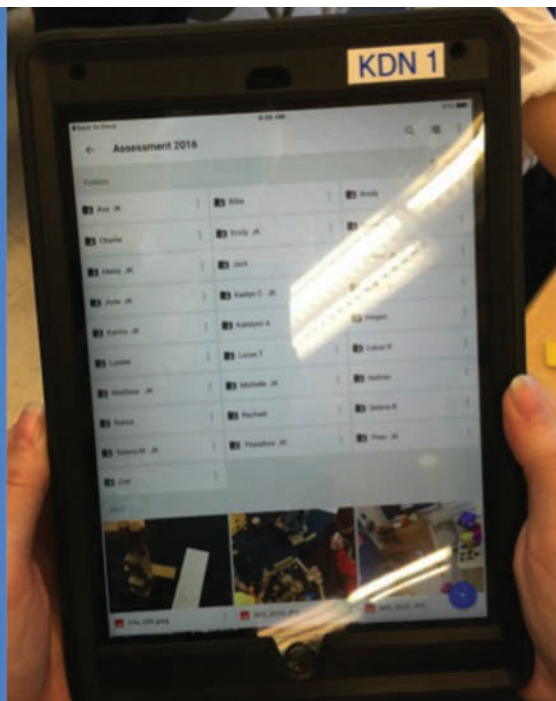
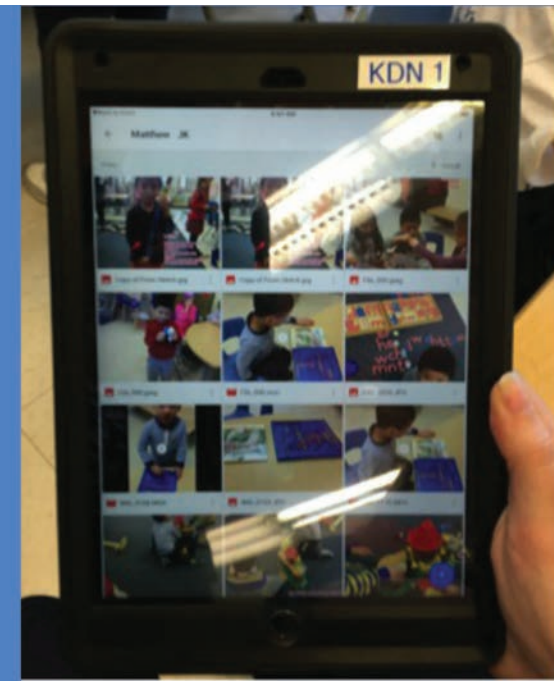
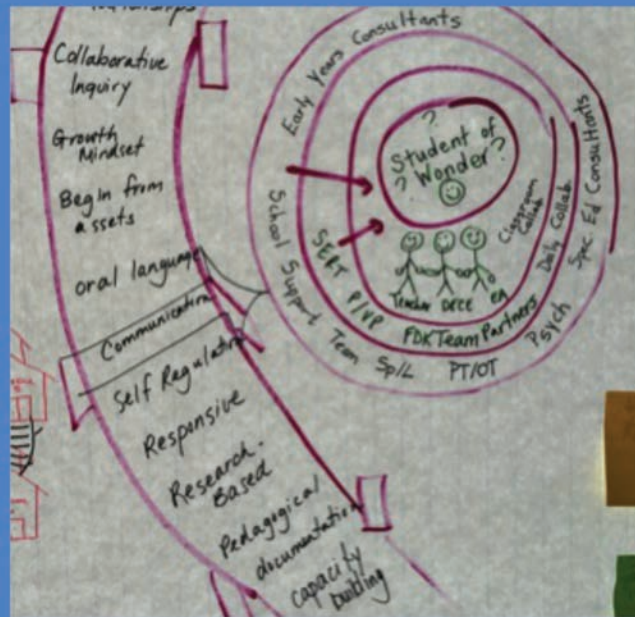
Student of Wonder



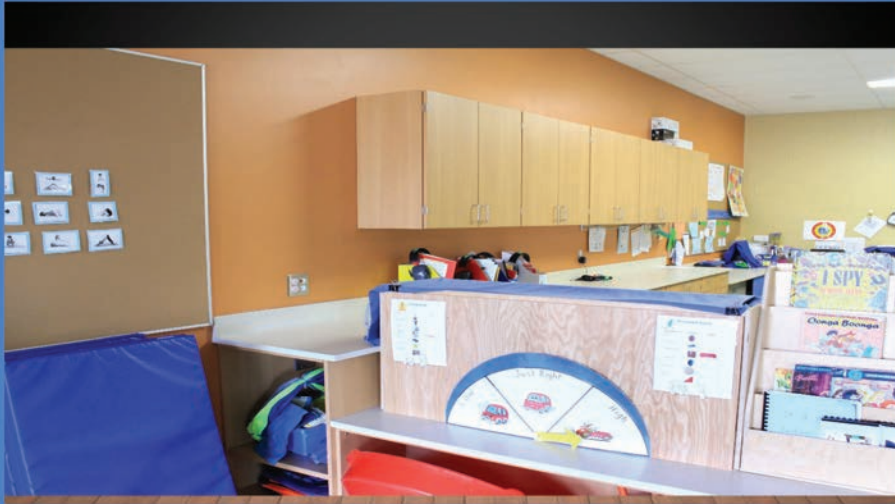
## Human-centered Technology



Student of Wonder







## The Red Feather Project

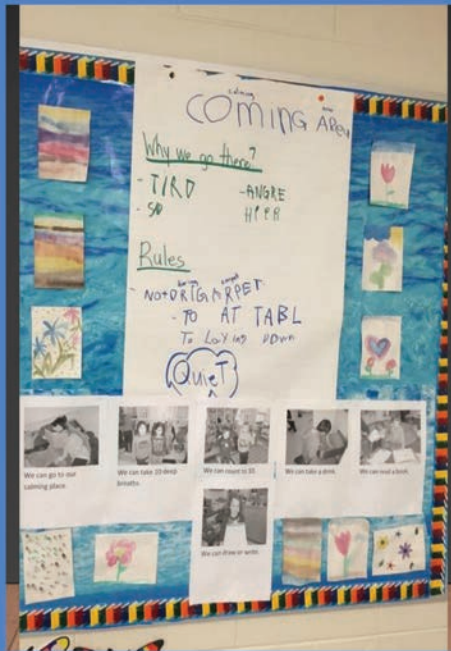


## Indigeneity

"The students came up with this idea that they would take a red feather and on each red feather they would write the name of one of the murdered or missing indigenous women.

That student would write that name, and that student would know who that woman was, and that student would put that feather on the tree."

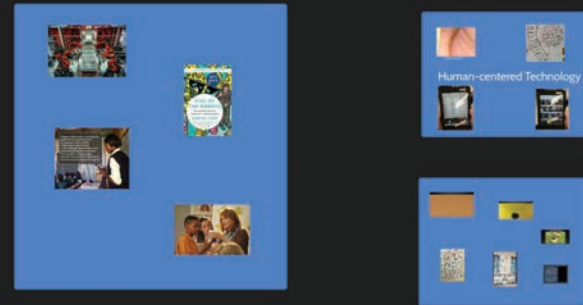




## Let's get practical!

### 3. The Professional Imperative

## Strengthen the Profession



## Ask yourself:

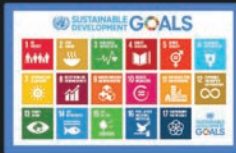
1. How are we developing the profession in our schools and systems?
2. How are we harmonizing new and old technologies to improve learning?



# Let's get practical!

## 4. The Global Imperative

*Dare to be Global*



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## SUSTAINABLE DEVELOPMENT GOALS



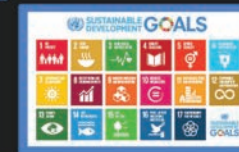




Let's get practical!

## 4. The Global Imperative

*Dare to be Global*



The Declaration of the Rights of the Child



The Declaration of the Rights of the Child

**Ask yourself:**



How are we preparing whole children  
for the whole world?

# Let's get practical!

## 5. The Existential Imperative

*Find Meaning and Purpose*

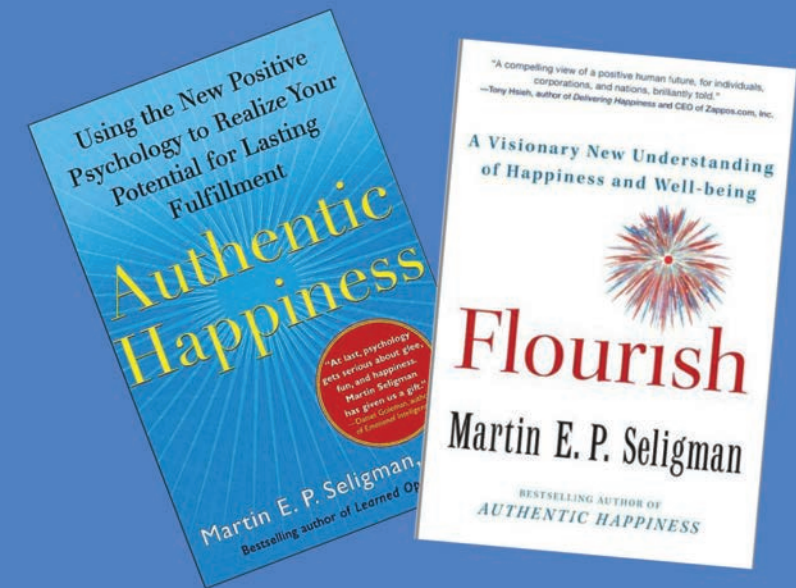


The PERMA Model of Psychological Well-being

- Positive emotions
- Engagement
- Relationships
- Meaning
- Accomplishments



"Don't give up on your dreams. Change your circumstances and achieve your goals as much as you can. Please don't give up!"

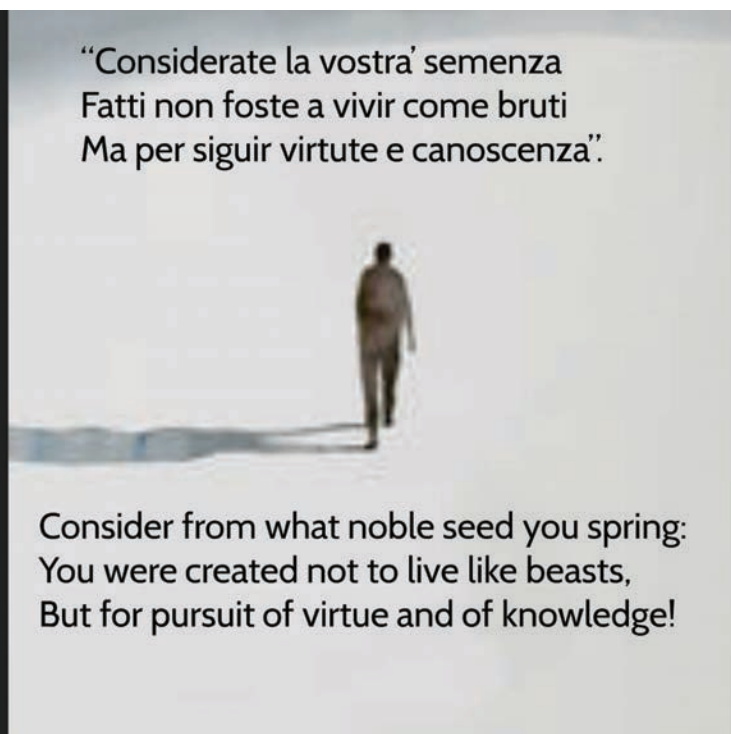
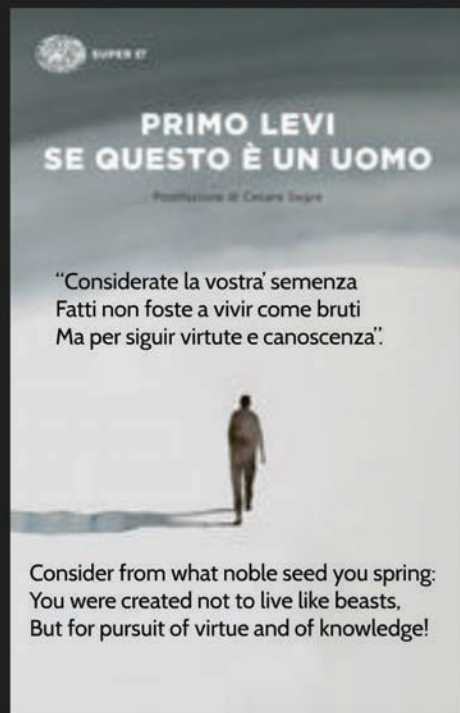


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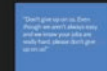
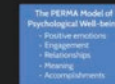




Let's get practical!

## 5. The Existential Imperative

*Find Meaning and Purpose*



"Don't give up on us. Even though we aren't always easy and we know your jobs are really hard, please don't give up on us!"

***Ask yourself:***



How are we helping our students find meaning and purpose in their learning and in their lives?



# The Journey Ahead

## Five Practical Steps

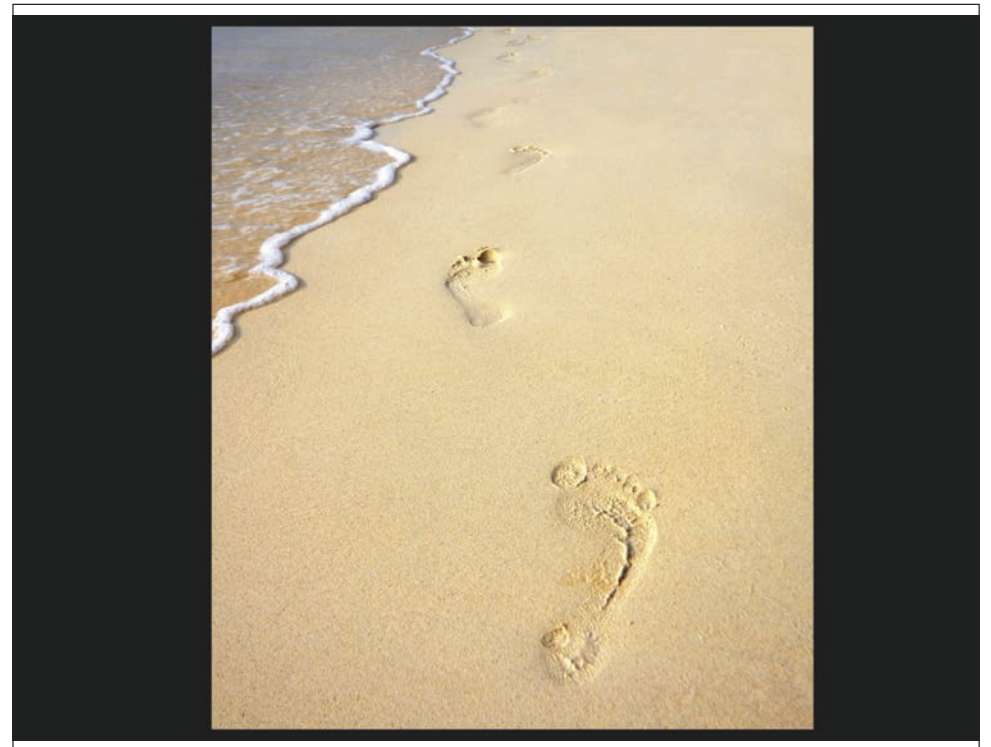
1. *Study* All Evidence
2. *Interpret* Intentionally
3. *Strengthen* the Profession
4. *Dare* to be Global
5. *Find* Meaning and Purpose











Thank you!