Humans Wanted
How the Coming Skills Revolution can Transform Agriculture and Help Feed the World

John Stackhouse
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Global population to reach 8.55 billion in ten years
Canada’s Opportunity: $11 billion more in output by 2030
Future Launch

- $500 million over 10 years
- Skills, experience and networks
THE COMING SKILLS REVOLUTION
Humans Wanted
How Canadian youth can thrive in the age of disruption
WHAT WE FOUND

2.4 MILLION JOBS
over 4 years
WHAT WE FOUND

50% of jobs will face SIGNIFICANT RISK OF DISRUPTION in the next decade.
WHAT WE FOUND

FOUNDATIONAL SKILLS will be essential
WHAT WE FOUND

SKILLS MOBILITY
is needed to respond to disruption
What’s Needed

Better labour market information
Life-long learning
Hiring for skills over credentials
Work integrated learning
We shared these findings with communities across the country.

Canadians told us there’s much to be done to bridge the skills gap.
Agriculture headed for a decade of disruption
Innovative

Diverse

High Skill

Data Powered

Farmer 4.0
# Five skills groups to navigate the 2020s

<table>
<thead>
<tr>
<th></th>
<th>Deciders</th>
<th>Specialists</th>
<th>Doers</th>
<th>Enablers</th>
<th>Advisors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2030</strong></td>
<td>135,570</td>
<td>18,393</td>
<td>165,543</td>
<td>24,762</td>
<td>18,146</td>
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<tr>
<td><strong>Skills Need</strong></td>
<td>Leadership and business</td>
<td>Regulatory skills</td>
<td>Judgement</td>
<td>Software / UI</td>
<td>Science / Agronomy</td>
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<tr>
<td></td>
<td>Tech awareness</td>
<td>Data analysis</td>
<td>Fine dexterity</td>
<td>Leadership and business</td>
<td>Data analysis</td>
</tr>
<tr>
<td></td>
<td>People mgmt</td>
<td>Tech knowledge</td>
<td>Digital interfacing</td>
<td>Installing / repair</td>
<td>Financial mgmt</td>
</tr>
<tr>
<td><strong>Job Growth</strong></td>
<td>-1.4%</td>
<td>6.7%</td>
<td>8.4%</td>
<td>8.8%</td>
<td>7.5%</td>
</tr>
<tr>
<td><strong>Automation Risk</strong></td>
<td>5.4%</td>
<td>10.35%</td>
<td>94.2%</td>
<td>51.9%</td>
<td>42.8%</td>
</tr>
</tbody>
</table>
Shift towards human and management skills

Deciders; 2030 Skills Gap

- Critical Thinking
- Active Listening
- Management of Personnel Resources
- Management of Financial Resources
- Systems Analysis

Advisors; 2030 Skills Gap

- Critical Thinking
- Communication
- Mathematics
- Service Orientation
- Active Learning
Largest shortages in low-skill roles

- General Farm Workers
- Nursery and Greenhouse Workers
- Harvesting Labourers
- Managers in Agriculture
- Specialized Livestock Workers
- Other
Automation is here ...

14% of producers automated tasks to fill labour shortages last year

66% of dairy producers expect their workforce to stay the same or decline, as they automate

= Oilseed and grain producers spend the same on machine repairs as they do on workers
... yet Canada risks falling behind

3.4% of global AgTech investment occurred in Canada in 2018, outpaced by US, India and China

2.4x Canada imports more than double the farm machinery that it exports

11% of Agriculture R&D comes from private sources, compared with 73% in US
What’s Needed

Promotion of Agriculture careers to youth
What’s Needed

Skilled immigration for Agriculture
What’s Needed

Commercialization of Agricultural technology
What’s Needed

Encourage mobility to areas in most demand
What’s Needed

An Agricultural curriculum for future jobs
Thank you

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