BLOSSOM OR ROT?
Anchor firm collapse, entrepreneurship, & labour market effects

Creating Digital Opportunity Annual Meeting, Saskatoon, Canada – April 26, 2016

TARA VINODRAI, PhD
Associate Professor
University of Waterloo
Tara.vinodrai@uwaterloo.ca | @TaraVinodrai

BEN SPIGEL, PhD
Chancellor’s Fellow
University of Edinburgh Business School
ben.spigel@ed.ac.uk | @Ben_Spigel
BLOSSOM OR ROT?

1. Entrepreneurial eco-systems and labour markets
   • The case of Blackberry / Kitchener-Waterloo
2. Studying eco-systems? Using novel data sets
3. What did we find? Results
4. Where are we going? Next steps

Source: Blackberry Annual Reports (various years), Yahoo Finance
BLACKBERRY: EMPLOYEES by TYPE, 2004-2014

Source: Blackberry Annual Reports (various years)
Inside the fall of BlackBerry: How the smartphone inventor failed to adapt

SEAN SILCOFF, JACQUIE MCNISH AND STEVE LADURANTAYE
The Globe and Mail
Published Friday, Sep. 27 2013, 7:03 AM EDT
Last updated Wednesday, Nov. 06 2013, 10:09 AM EST

Why BlackBerry has a fighting chance at a comeback

RAY SHARMA
Contributed to The Globe and Mail
Published Thursday, Mar. 05 2015, 2:46 PM EST
Last updated Friday, Mar. 06 2015, 7:05 AM EST

INNOVATE OR DIE
The end of BlackBerry as we know it

RYAN CALIGIURI
Special to The Globe and Mail
Published Tuesday, Feb. 03 2015, 5:00 AM EST
Last updated Wednesday, Feb. 04 2015, 10:45 AM EST

THE FIRM IN THE REGION, THE REGION IN THE FIRM
Tracing the BlackBerry diaspora

BlackBerry’s workforce has shrunk dramatically since 2011. Here’s where a lot of those people went.

Jason Kirby and Matthew Allen
July 21, 2015

Help wanted: Waterloo firms scramble to attract new talent

IAIN MARLOW
00:00 EDT Monday, April 09, 2012

DEBATE THIS: INNOVATION IN EDUCATION
Innovation in Waterloo won’t die with BlackBerry

FERDUN HAMDULLAHPUR
Contributed to The Globe and Mail
Published Tuesday, Oct. 08 2013, 7:00 AM EDT
Last updated Wednesday, Oct. 09 2013, 11:19 AM EDT

ANCHOR FIRM DEMISE, DIGITAL DIASPORA?
• What is the nature of inter-firm, inter-industry/cluster, and geographic mobility for digital talent?

• What is the impact and influence of key events (e.g. demise/restructuring of local anchor firm) on
  • local labour market dynamics?
  • new firm/cluster formation and entrepreneurship?
• High levels of labour market mobility contribute to knowledge circulation and innovation

• Inter-cluster mobility: ‘Brain circulation’ (Saxenian 2006)

• Intra-cluster mobility: Localized knowledge spillovers embedded in regional labour markets (Angel 1991; Almeida & Kogut 1999)

• National context / economic system matters (Vinodrai 2013; Storz et al. 2014)
• Collapse of anchor firms releases significant human capital back into the (local?) labour market

• Resilient regions can capture and re-bundle this talent

• Threat of outmigration if skilled workers cannot be re-employed locally in existing or new ventures
• Local entrepreneurial culture and support network can encourage entrepreneurship amongst laid off workers

• Entrepreneurial employees can employ technical knowledge and market insight to launch high quality firms

• But assumes entrepreneurial ability & mindset amongst workers in large firms
ENTREPRENEURIAL ECOSYSTEMS & LABOUR MARKET EVOLUTION

Workers use talents to create new ventures & create cluster
Example: Washington D.C (Feldman, 2001)

Workers leave region or turn to low-value consulting to replace income
Example: Ottawa (Spigel, 2011)

Anchor Firm Growth $t-1$
Collapse $t$
Evolution? $t+1$
• Need to embrace alternative data sources to ask new questions and go beyond the firm level (Kitchin 2013; Feldman 2015; Feldman and Lowe 2015)

• Social media job data offer a potentially rich source of individual-level data with high geographic/sectoral resolution

• Previous studies: Feldman and Lowe 2015 (founder career history and education); Jiang et al 2014 (career paths of credit analysts); Mendel 2014 (regional ‘connectedness’ and growth); State et al 2014 (migration of highly skilled workers)
• Social media profiles contain information on location, employer, job titles and histories, educational attainment.

• Incentive for individuals to keep data accurate and up to date, especially in occupations / industries with high labour mobility.
• Identify individuals who identified as a founder and employed by Blackberry / Research in Motion (n = 1,166)

• Founders: Any individual who had job title containing Founder, Co-Founder, Owner, President, CEO, Chief Executive Officer

• Narrowed focus to people who had worked at Blackberry in Waterloo in past five reported jobs (n=183)

• Selected only those who were a founder after leaving Blackberry HQ in Waterloo, post-2010 (n=134)
• Very structured data but also very messy

• Unclear job titles

• Interns and co-op students

• Missing temporal / geographic data

• What types of entrepreneurship matter?
<table>
<thead>
<tr>
<th>City-region</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterloo</td>
<td>64</td>
<td>47.8</td>
</tr>
<tr>
<td>Toronto</td>
<td>28</td>
<td>20.9</td>
</tr>
<tr>
<td>Other Canadian cities</td>
<td>27</td>
<td>20.1</td>
</tr>
<tr>
<td>Bay Area</td>
<td>5</td>
<td>3.7</td>
</tr>
<tr>
<td>Other US Cities</td>
<td>6</td>
<td>4.5</td>
</tr>
<tr>
<td>Outside North America</td>
<td>4</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>134</strong></td>
<td><strong>100.0</strong></td>
</tr>
<tr>
<td>Years of Experience</td>
<td>Count</td>
<td>%</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------</td>
<td>-----</td>
</tr>
<tr>
<td>1 to 2 years</td>
<td>6</td>
<td>4.5</td>
</tr>
<tr>
<td>3 to 5 years</td>
<td>15</td>
<td>11.2</td>
</tr>
<tr>
<td>6 to 10 years</td>
<td>47</td>
<td>35.1</td>
</tr>
<tr>
<td>More than 10 years</td>
<td>66</td>
<td>49.3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>134</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
• Slightly more individuals who had only worked at Blackberry HQ in Waterloo stayed in Canada (90.4%) compared to those who had also worked at other Blackberry locations (84.8%)

• Career stage mattered to whether or not entrepreneurs remained in Canada
  • 1 to 2 years experience (83.3%)
  • 3 to 5 years experience (86.7%)
  • 6 to 10 years (80.9%)
  • More than 10 years (95.5%)

STORY 1: ENTREPRENEURIAL TALENT @ BLACKBERRY HQ
STORY 1: ENTREPRENEURIAL TALENT @ BLACKBERRY HQ

All founders 1167

Worked at BB in Waterloo 183

Started firm post-2010 134

High-tech / high-growth potential 31

No exit or second job 72
<table>
<thead>
<tr>
<th>City-region</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterloo</td>
<td>20</td>
<td>66</td>
</tr>
<tr>
<td>Toronto</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>Boston</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Calgary</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Unknown</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>30</td>
<td>100.0</td>
</tr>
<tr>
<td>Years of Experience</td>
<td>Count</td>
<td>%</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------</td>
<td>-----</td>
</tr>
<tr>
<td>1 to 2 years</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>3 to 5 years</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>6 to 10 years</td>
<td>7</td>
<td>23.3</td>
</tr>
<tr>
<td>More than 10 years</td>
<td>19</td>
<td>63.3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>30</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

**STORY 1: HIGH-TECH STARTUPS @ BLACKBERRY HQ**
• High proportion of former Blackberry employee-turned-entrepreneurs appear to be from other locations in Canada and globally

• Corporate acquisitions by Blackberry in 2010
  • QNX (Ottawa)
  • TAT (Malmö)
  • And others …
STORY 2: HIGH-TECH STARTUPS @ GLOBAL BLACKBERRY

The Astonishing Tribe (TAT)
Malmö, Sweden (35)

Swedish design company
TAT acquired by Blackberry (2010)

Other companies
Sweden (13)

Brisk (2)

Second job (8)

Employees
Sweden (9)

High-tech or design startup (10)

TOPP (7)

Block Zero (3)

Intunio (8)
### High-tech Startups: Local vs. Global BlackBerry

<table>
<thead>
<tr>
<th>Category</th>
<th>Waterloo</th>
<th>Malmö</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackberry employees who were also founders</td>
<td>183</td>
<td>48</td>
</tr>
<tr>
<td>Founders (after leaving BB)</td>
<td>134</td>
<td>39</td>
</tr>
<tr>
<td>No exit / No second job</td>
<td>72</td>
<td>31</td>
</tr>
<tr>
<td>High-tech / growth start-ups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Individuals</td>
<td>31</td>
<td>30</td>
</tr>
<tr>
<td>- Firms</td>
<td>29</td>
<td>14</td>
</tr>
</tbody>
</table>
THE FIRM IN THE REGION, THE REGION IN THE FIRM?
ANCHOR FIRM DEMISE AND DIGITAL OPPORTUNITY

1. Entrepreneurial eco-systems and labour markets
   • The firm in the region, the region in the firm
   • The case of Blackberry / Kitchener-Waterloo

2. Studying eco-systems? Using novel data sets

3. What did we find? Results

4. Where are we going? Next steps
• Thanks to:
  • Social Sciences and Humanities Research Council (SSHRC)
  • Faculty of Environment, University of Waterloo
  • Innovation Policy Lab, Munk School of Global Affairs, University of Toronto

• Contact us:
  • tara.vinodrai@uwaterloo.ca
  • Ben.Spigel@ed.ac.uk

• Cover photo source
  • http://fusion.net/story/45438/the-life-death-and-rebirth-of-blackberrys-hometown/