The Inclusive Agile Accelerator: How to Improve Learning and Inclusion in the IT Industry

Alejandro Olchik – aolchik@ionatec.com.br
Rafael Prikladnicki – rafaelp@pucrs.br
The Inclusive Agile Accelerator?

**The Inclusive Accelerator**
Develops basic programming skills of teenagers from high school in a situation of social vulnerability.

**The Agile Accelerator**
Develops the required skills of students to deliver a software product to solve a real problem using agile mindset, values, principles, and practices.
Context

**PUCRS**
Since 1948
38,000 students
Among the top three private non-profit Universities in Brazil

**Tecnopuc**
Since 2003
Three times best STP of Brazil
170 Organizations
7,100 people involved
90,000 sqm of built area
Join at
slido.com
#IAA2019

Add & Vote Questions
Once upon a time...

All pictures and videos used in this presentation were formally approved by the people involved.
Guiding Principles...
Guiding Principles

Be instrumental

Prepare for our century

Embrace diversity
Poll exercise

What is the main attribute you look for when hiring new candidates for your organization?

And the results...

**Instrumental knowledge**
Practical knowledge required for the job opening.

**21st century skills**
Communication, collaboration, creativity and critical thinking.

**Embracing/increasing diversity**
Personal story, context, value system.

Join at slido.com #IAA2019
The Agile Accelerator 2019
Overall structure

<table>
<thead>
<tr>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
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<tbody>
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<td>1st semester</td>
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- Recruit. & selection
- Recruit. & selection

16 weeks

- Working Day
- Students: 13 / class
- Core mentors: 5-8 / class

Scholarships

- Mentors from PUCRS (grad students)
- Mentors from TW
- External mentors
An inclusive student recruitment process
Get resumes & filter through a coding challenge
Know them better through a group dynamic and an interview
The Huddle: prioritizing diversity
Mentors also develop their skills.
Project selection reinforces intrinsic motivation
An the selected project is...
A one week inception to lay the foundations
Technical fluency is a challenge
Technical fluency requires close support
Agile methods help to address learning challenges
Active learning encourages self-development
Badges help to reinforce key behaviours
Multiple feedback loops improve interactions
Opportunities for continuity
improve transition
The outcomes
100
Candidates/edition

15
Projects

127
Students
OPENMRS: PATIENT PROFILE IMPROVEMENT

Contribution to OpenMRS, an open-sourced Electronic Medical Record system for health systems in the development world.

VOTO COMO VAMOS

(Vote, how are we?)

Help to monitor how city councilors are voting.
**E-PR@ACTICE**

E-learning application that teaches the fundamentals and offers smart feedback.

**REGISTRO LIVRE**

*(Free Record)*

Open data platform to make accessible to any citizen public records about companies, and shareholders.
COMER COM SABER
(Eat wisely)
Web app to educate about healthy eating.

ONGARIUM
A reputation-based web app to connect volunteers and NGOs.
NÃO ME CALO
(I won't shut up)
A website to rank commercial establishments according to their friendliness to minorities.

HEMO HEROES
Involve the community to improve the stock of blood available in hospitals.
LIGA
A platform to improve partnerships between companies at TecnoPUC.

CONHECIMENTO LIVRE
Website to distribute free courseware for Brazilian students that cannot afford it otherwise.
**PRES CARE**
Management of medical prescriptions for assisted children at CMJP, NGO that helps special children with deep brain injury from poor or unstructured families.

**HOSPEBEM**
Bed booking system at ViaVida, NGO that hosts people coming to the city for transplant procedures without a place to stay.
A web app to connect small restaurants to small producers directly, reducing the dependency on large intermediaries.
Agile self-assessment (adapted from James Shore)
30% Women candidates/edition
87%
Initial expectations completely met or exceeded

85%
High or very high importance in achieving their current professional position

Alumni survey, 2019/1.
Improving social and economic inclusion
## The Beginning

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The Inclusive Accelerator

A program to enable teenagers in conditions of social and economic vulnerability to have a first contact with technology and software development.
Maria Mariana: Our first try

15 year old girl
Black
Second to last year of high school
Contributes to the income of her family
Wants to have a career
Maria Mariana is ONE of the personas

Eder Ederson  
White boy, 16  
Main source of income of his family

João Joana  
A trans girl, 17  
Not accepted by her family and community

Manu Manuela  
A girl, 15  
Wheelchair user that depends on her mother
| Key Partners | Career office  
Pastoral/Polytechnic School  
Technological Park  
Consultants/specialists |
|---|---|
| Key Activities | Create content and methodology  
Sourcing and selection |
| Key Resources | Labs  
Transport  
Mentors |
| Value Proposition | Social inclusion through the opportunity to become competitive professionals  
Improve diversity at our local IT market |
| Customer Relationships | Integral support  
Be agile |
| Channels | Schools  
Social Network Communities  
Sites |
| Customer Segments | 14-17 years old  
Interested and willing to learn  
Unstructured family  
Logistic challenges |
| Cost Structure | Stipends  
Food  
Transport (4 months) |
| Measure of Success | % of students accepted at the Agile Accelerator  
% of students employed or on internships |

**Business Model Canvas**
The Selection Process

Indication  Interview  Selection
The first day
The second day
The conversation about addiction
The retrospective
The technical track
Portugol
HTML
CSS
Javascript
Personal Projects
The graduation
### Class Profile

<table>
<thead>
<tr>
<th>Category</th>
<th>2018/1</th>
<th>2018/2</th>
<th>2019/1</th>
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<tbody>
<tr>
<td>Students</td>
<td>12</td>
<td>15</td>
<td>13</td>
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<tr>
<td>From internal indications</td>
<td>8</td>
<td>15</td>
<td>11</td>
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<tr>
<td>From previous edition</td>
<td>0</td>
<td>3</td>
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<td>Women</td>
<td>8</td>
<td>9</td>
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<td>Mothers</td>
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### Program Continuity

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<th>2018/1</th>
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<th>2019/1</th>
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<td>Joined the Agile Accelerator</td>
<td>2</td>
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<tr>
<td>Invited to join the next edition</td>
<td>3</td>
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</table>
Current Challenges
Improve the balance between professional placement and project delivery.
Increase inclusion and diversity.
Spread the word.
Testimonies from students that went through the entire program
Thanks!

Any questions?

(Questions at slido.com #J548)

You can find us at

- Alejandro Olchik – aolchik@ionatec.com.br
- Rafael Prikladnicki – rafaelp@pucrs.br
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