Iridescent’s Positioning and Theory of Change

December 4, 2016
The purpose of this document is provide a high-level framework for Iridescent’s positioning. It was developed by the senior leadership team to articulate our mission, vision, approach and anticipated impact—in essence our theory of change*.

- It is intended for general external audiences who are curious and want to understand what problem we are trying to solve, what approach we are taking to solve it and the transformation we believe we can make.
- It is also intended for internal audiences so that all team members can better understand and embrace the journey we are on and help them communicate this framework to others.
- It is not designed to provide the rationality to answer the question “Why Iridescent?”

* Theory of Change (ToC) is a specific type of methodology for planning, participation, and evaluation that is used in the philanthropy, not-for-profit and government sectors to promote social change. Theory of Change defines long-term goals and then maps backward to identify necessary preconditions. Theory of Change explains the process of change by outlining causal linkages in an initiative, i.e., its shorter-term, intermediate, and longer-term outcomes. (Source: Wikipedia)
Iridescent’s Mission

To empower the world’s underrepresented young people, especially girls, through engineering and technology, to become innovators and leaders.

Iridescent accomplishes this by creating and delivering powerful science*, engineering and technology education to help underprivileged young people develop curiosity, creativity and perseverance.

* Note: Science” and STEM remain important in Iridescent’s role in this arena
Iridescent’s Vision

A world where people in underserved communities* have strengthened and amplified their collective capacity to address challenging problems by using engineering and technology.

* Includes students, mentors, educators, parents as well as partners, coalitions and sponsors who are helping in these communities
Iridescent is a science, engineering, and technology education nonprofit organization that empowers underrepresented young people to become self-motivated learners, inventors, and leaders. Since 2006, more than 63,000 children, parents, mentors, and educators have participated in its two global programs: Technovation, the world’s largest global tech entrepreneurship program for girls, and Curiosity Machine, a unique, open-ended, project-based learning program that inspires students, families, and teachers to solve science and engineering problems together. Iridescent has proudly trained more than 3,500 engineers and scientists to develop design challenges and/or mentor students and families. In recognition of its pioneering work for the collective impact in underserved communities, Iridescent received the prestigious 2015 Excellence in Mentoring award, a US2020 White House Initiative.
Problem Statement

The Challenge and Addressing it

Many of the obstacles to learning for youth in underrepresented communities are everywhere, including the absence of educational infrastructure and ineffective reach to underserved communities. These are difficult challenges for any child; the challenges are multiplied in environments that lack a robust and vibrant culture of learning to solve problems.

Therefore an important part of the challenge is to build a platform and community of educators, parents, mentors who will work with young people. Iridescent, through its deep connections with all three of these groups, is uniquely well positioned to address these challenges by engaging directly with the young people, especially girls, in these US communities and developing economies. Doing so successfully requires a commitment to sustained engagement, to impact at scale, and to advancing the state of knowledge relevant to hands-on STEM training in these areas.

Unlike many other organizations in this ecosystem who focus more on immediate goals, Iridescent’s holistic endeavor is to advance the self-efficacy of young people and ultimately the transformation of communities that can begin to solve its own problems effectively through innovation, leadership and resilience.
Iridescent pursues a holistic approach that leverages the broader educational spectrum for longer-term individual and collective impact. This community approach differentiates the organization from other players in the ‘marketplace’ that focus on only a couple of supporters or stakeholder groups to accomplish that impact.
**Iridescent’s Theory of Change for Real Transformation**

**Underserved Young People and their Communities**

<table>
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<tr>
<th>Ecosystem</th>
<th>Iridescent Education Process</th>
<th>Build Competencies and Character</th>
<th>Individual Impact**</th>
<th>Collective Impact**</th>
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</thead>
<tbody>
<tr>
<td>Governments</td>
<td>Self-Efficacy Theory* integrated with project-based learning with support system for educators, parents, mentors, and partners:</td>
<td>Curiosity</td>
<td>Self-efficacy</td>
<td>Role models</td>
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<td>Institutions</td>
<td>• Content</td>
<td>Creativity</td>
<td>Entrepreneurship</td>
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<td>Large Nonprofits</td>
<td>• Training</td>
<td>Perseverance</td>
<td>Life and career skills</td>
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<td>Small Nonprofits</td>
<td>• Analytics</td>
<td>Problem-solving skills</td>
<td>STEM careers</td>
<td>Regional and global transformation</td>
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<td>School Districts</td>
<td></td>
<td>Computational thinking skills</td>
<td>Learning, leadership, and innovation skills</td>
<td>Solving some of the most pressing regional and worldwide problems (i.e. UN Sustainable Development Goals, etc.)</td>
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<td>Communication, collaboration, and teamwork</td>
<td><strong>For Mentors:</strong> Professional development and fulfillment in helping</td>
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</table>

* Predominantly based on the work of psychologist Albert Bandura on self-efficacy
** Proxies will be developed to help in measurement, analytics and assessment
Ultimate Objective: Driving Toward Impact

** Proxies will be developed to help in measurement, analytics and assessment
Our Approach to Scale:

Iridescent is a nonprofit firm that strives to increase the self-efficacy of girls and youth by providing a platform and community for STEM learning. Iridescent provides content, training and analytics*.

Throughout its history, Iridescent has worked on multiple fronts and multiple time horizons:

- **Direct Action** *(Short-term)*: Supporting girls and youth through specialized curriculums, a technology entrepreneur competition and a community of parents, educators and scientific/engineering mentors.

- **Mobilization** *(Mid-term)*: Mobilizing and training trainers: educators, partners and volunteer alumni to scale the impact globally through grants, partnerships and increasingly through revenue-generating membership and earned income.

- **Partnership** *(Long-term)*: Forming partnerships with global partners and coalitions to disseminate curriculum, train entities and share analytics. Iridescent becomes the back-bone infrastructure for other large global players.

* including evidence-based learning/outcomes
Rapid Participant Growth from 2006-2019 (actuals and plan numbers)

Iridescent's Reach through its Programs

NUMBER OF PARTICIPANTS

YEAR

Strategic Plan Projection: 2017–2019

Iridescent’s Evolution Over Time

Iridescent has been working in each of these fronts and time horizons since its launch. The yield of measureable impact, however, has been and will be anticipated at three different time periods. Although the strategic model is evolving and the composition of approach changes, it remains a hybrid that continues to work on 3 fronts:

1. **Short-term**: *Direct Action* - Training girls, youth with mentors

2. **Mid-term**: Shifting model to *mobilize* the training of educators, trainers and mentors gradually through revenue-generating income (aka earned income).

3. **Long-term**: Shifting model again to *partner* with corporations, global organizations and coalitions to expand growth. To scale, Iridescent will serve as the “backbone organization” providing content, training and analytics.

**Impact:**
Growing Participation

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*For Illustrative purposes only*