



August 22, 2011

Dear Engineers,

Thank you for being part of “Engineers as Teachers”. We promise it will be an incredible journey. As this movement grows, we want to make sure our story is not lost and you know that what you go through is difficult, but that you have a lot of support.

#### *Why I started Iridescent*

I was born in India and didn’t have access to many resources. What I did have were two parents who taught me that curiosity and persistence were my greatest assets. They also taught me to aim for the stars and then to work insanely hard to reach them. When I came to the US (and to Los Angeles), I was shocked to see the stark inequity around. India is a poor country, but there is a manic drive to pursue careers in science, engineering or technology (regardless of background or social status). I didn’t see that fire in the children here. I was also appalled to see that children from underserved, minority communities rarely interacted with scientists and engineers or professionals with college degrees. I decided to do something about it and with a unique approach.

Being an engineer, I knew I had some special skills and interests to share with children. I was able to ask the right kind of questions, compare information, articulate problems, come up with different solutions and most importantly enjoy building, designing and redesigning endlessly. After being in the lab for so many years, behind a computer, I knew that I wanted to interact with children, share my interests and see their eyes light up. And so I started Iridescent with the vision of giving engineers and scientists the tools to share their passion with children.

#### *How far we have come*

“Engineers as Teachers” is now in its 6<sup>th</sup> year at the University of Southern California and its 2<sup>nd</sup> year at The Cooper Union in New York. We have trained more than 400 engineers who have inspired ~9000 children and their families.

We have earned a very prestigious 5-year longitudinal study grant from the National Science Foundation and a 3-year scale-up grant from the Office of Naval Research through which we have been able to start locations in New York City and the San Francisco Bay Area (in addition to Los Angeles).

Our team is made up of incredibly driven, passionate people who want to make lasting change in innovative ways. Each of these team members is committed to supporting you and making sure we are collectively making an impact in the world.

#### *What to expect*

It will be tough. Few people get the opportunity to teach complex scientific ideas to huge audiences who do not speak English and have limited formal education. The reason why many people don’t do this is because it is hard! We do this because we don’t believe in band-aid solutions. Changing a child’s values, life direction and character traits does not happen easily. But when you put in your heart and soul, you will experience some incredible rewards. Nothing compares to the sweet feeling of accomplishment when a child comes and hugs you and says that she is going to be an engineer when she grows up – and you know that when you started teaching she didn’t even know the word “engineer”.



The Iridescent team always gives our all and our very best and we expect you to do the same. We consider it a privilege to have the opportunity to shape a child's mind forever. The Family Science experience is so unusual that it is sure to stand out in the family's memory for a very long time. So take this responsibility extremely seriously. Give it your all, your best. Go the extra mile to prepare. You will not regret it.

This class is very different from all your other classes as there are real-world consequences to everything you do. If you put your heart and soul into this training, you will most certainly make a lasting impact on the children you teach. In addition you will also inspire the parents, translators, teachers and school administrators who support the sessions.

We promise to support you to the utmost, but we cannot promise a smooth ride. If you are in the business of solving big, hard problems, you are at the frontlines and are constantly experiencing a lot of unknowns and change. We will be right there with you, but ask you to join us in solving the problems we encounter. Be brave and we will make a change – together.

*How much effort should I put into this endeavor?*

It is not easy to explain complex concepts in simple, engaging terms to children. This will be your biggest challenge and the best thing you can do is to be brutally honest with yourself. Really question if you truly understand a concept. Do not hide behind jargon, formulae or definitions.

If you are relentlessly curious, honest and brave and are not afraid of saying, "I don't know the answer to that. Let's find out together", your students will be the same.

*Why is it worth it?*

This will be one of the hardest classes you will ever take because it demands you to be self-directed, disciplined and responsible. But it is very rare (in any field other than education) that you can have immediate, direct and lasting impact on hundreds of people in a short period of time. There is some research that shows how influential experiences such as the Family Science Courses are on a child's attitudes, perceptions and behavior – even after many years have passed.

*The Vision*

Our goal is to have an "Engineers as Teachers" chapter in every engineering university in the United States, helping engineers inspire children to become more curious about the world around them. You are part of a fiery movement that will be a force to be reckoned with in five years.

We are so proud that we have come so far so quickly. The journey ahead promises to be even more exciting and unforgettable. Thank you for joining us!

Pour your heart and soul into it and you will remember this experience forever – an experience where you aimed for the stars and worked insanely hard to reach them.

Tara Chklovski

*Founder, CEO, Iridescent*