Neurodiversity:

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An Untapped Resource of Intellectual Creativity

Roger Allan Pearce, Ph.D.

It is my personal belief that there exists a large untapped resource of intellectual creativity trapped in the vast sea of 3.0 students. Students blessed with neurodiverse minds, including dyslexia, ADHD, aspergers, among other formal diagnoses, often struggle in an environment constructed for the neurotypical. Externally characterized by "slow reader", wondering minds, anti-social, among many other gross oversimplifications, these students are forced to learn coping strategies to perform in a competitive neurotypical academic environment. Such coping strategies often leave them classified as average when they are far from.

Anecdotally, many of the modern pioneers in STEM can be categorized as neuroatypical; some performing average to poor in a traditional academic environment. Had not a serendipitous event or connection outside the typical paths been made, these individuals may not have made the impact we take for granted today.

My curiosity in this space was seeded by interacting with brilliant researchers some would define as "eclectic". Years later, when one of my own children was diagnosed with dyslexia was when I began to appreciate the challenges faced by such children, starting in early childhood education. The journey as parents my wife and I took investigating custom learning environments to teach basic reading skills was enlightening. **What we commonly consider as "intelligence" or intellectual creativity is quite divorced from what we measure as "performance" in a classic academic environment.**

If my next career step takes me closer to an academic environment, my personal questions to investigate are: *How does one find such talent in the vast sea of 'average' students? How do you redirect their efforts towards their natural gifts?*

I realize that *neurodiversity* may not have been the expected topic of a diversity statement, but I would be remiss if I did not take the opportunity to openly advocate for its awareness. I am of course emphatically supportive of all forms of diversity, including increasing participation among underrepresented groups and supporting diversity of expression, ideas, and cognition.

Finally, my research career has been heavily influenced by highly successful women in computer science. Initially, Prof. Nancy Amato had a large impact in my research directions as an undergraduate and later as my thesis advisor. At LLNL, Dr. Maya Gokhale's impact in my research towards national security directions has also been invaluable. Finally, my wife, Dr. Olga Pearce, is also a successful woman in computer science and we hope to instill in our young daughter and son the joy and value of a STEM education. In short, I'm living, breathing proof of the value of supporting women and diversity in STEM, and hope to instill its value in those I mentor.

Roger Allan Pearce, Ph.D.
Lawrence Livermore National Laboratory – Livermore, CA
925.422.2604 • *rpearce@llnl.gov* • *http://people.llnl.gov/rpearce*