House District _____

Senate District _____

THE TWENTY-NINTH LEGISLATURE
APPLICATION FOR GRANTS
CHAPTER 42F, HAWAII REVISED STATUTES

Log No:

For Legislature's Use Only

Type of Grant Request:

☑ GRANT REQUEST – OPERATING ☐ GRANT REQUEST – CAPITAL

"Grant" means an award of state funds by the legislature, by an appropriation to a specified recipient, to support the activities of the recipient and permit the community to benefit from those activities.

"Recipient" means any organization or person receiving a grant.

STATE DEPARTMENT OR AGENCY RELATED TO THIS REQUEST (LEAVE BLANK IF UNKNOWN):

_____

STATE PROGRAM I.D. NO. (LEAVE BLANK IF UNKNOWN): _____

1. APPLICANT INFORMATION:

Legal Name of Requesting Organization or Individual: High Tech Youth Network

Dba:

Street Address: C/ 174 Kamehameha Ave.
Hilo, HI 96720

Mailing Address: 174 Kamehameha Ave.
Hilo, HI 96720

2. CONTACT PERSON FOR MATTERS INVOLVING THIS APPLICATION:

Name MIKE USMAR

Title CEO

Phone # (202) 905-0472

Fax # _____

E-mail mike@hightechyouth.org

3. TYPE OF BUSINESS ENTITY:

☑ NON PROFIT CORPORATION INCORPORATED IN HAWAII
☐ FOR PROFIT CORPORATION INCORPORATED IN HAWAII
☐ LIMITED LIABILITY COMPANY
☐ SOLE PROPRIETORSHIP/INDIVIDUAL
☐ OTHER

_____

6. DESCRIPTIVE TITLE OF APPLICANT'S REQUEST:

THIS IS A PROJECT AIMS TO BUILD THE CAPACITY AND PRESENCE OF HIGH TECH YOUTH NETWORK IN THE STATE OF HAWAII. WITH THE OBJECTIVE OF TARGETING UNDERSERVED, AT-RISK AND AND NATIVE HAWAIIAN YOUNG PEOPLE 8-18 AND INVESTING IN AFTER-SCHOOL STEM LEARNING AND THE DEVELOPMENT OF A CYBER LEARNING COMMUNITY THAT WILL LIFT EDUCATIONAL AND COLLEGE TO CAREER OUTCOMES FOR YOUNG PEOPLE.

4. FEDERAL TAX ID #: [redacted]

5. STATE TAX ID #: [redacted]

7. AMOUNT OF STATE FUNDS REQUESTED:

FISCAL YEAR 2018: $ 150,000

8. STATUS OF SERVICE DESCRIBED IN THIS REQUEST:

☐ NEW SERVICE (PRESENTLY DOES NOT EXIST)
☑ EXISTING SERVICE (PRESENTLY IN OPERATION)

SPECIFY THE AMOUNT BY SOURCES OF FUNDS AVAILABLE AT THE TIME OF THIS REQUEST:

STATE $150,000
FEDERAL $_____
COUNTY $_____
PRIVATE/OTHER $_____

TYPE NAME & TITLE OF AUTHORIZED REPRESENTATIVE:

[redacted]
AUTHORIZED SIGNATURE

MIKE USMAR, CEO
NAME & TITLE

11 JAN 2017
DATE SIGNED

Rev 12/2/16

RECEIVED
1/20/17

Application for Grants
High Tech Youth Network

Introduction

High Tech Youth Network (HTYN) was first established in 2004 as a not-for-profit organisation and is headquartered in the United States (Hawaii) New Zealand (Auckland) and with offices in Fiji, and Samoa.

The Network is focused on empowering young people aged 8-25 years of age who live in under-served and hard to reach communities throughout the Oceanic region to become more confident, resilient and creative life-long learners by linking cultural knowledge with advanced technology.

We believe that young people are both early adopters of technology and have an abundance of creativity and design thinking, a key driver to innovation in the 21st century.

More over young people across the Pacific region and in particular small island states have strong cultural ties to each other, and the HTYN value proposition is focused on connecting these strong social bonds together to build a dynamic, always evolving 21st century learning community to support educational, social, economic and whole of life transformation.

HTYN has five core elements to how it serves youth and communities in the region:

The High Tech Youth Network.

Is focused on connecting young people with other young people along with inspirational adult mentors both in the real world and through virtual "online" learning opportunities; HTYN is dedicated towards developing cyber skills that promote personal development pathways for youth from middle school through to higher learning or career opportunities. At the end of 2016

there was just over 6500 young people involved in the Network. The Network coordinates both the professional development of Staff, connecting youth to high tech industry mentors and securing caring donors and corporate sponsorship to provide underserved youth access to advanced technology that otherwise they would miss out on.

High Tech Youth Studio's

These are community facilities (either purpose built or co-located in host organisations such as schools, libraries, youth organisations etc.). HTY Studio's serve principally as after-school programs that provide extended learning opportunities (ELO) for youth to work in a highly creative informal learning environments that promote Science, Technology Engineering and Computational thinking. Young people have access to industry sponsored software and hardware, and can work on projects of self interest, which could include 3d engineering, video and music production, coding, animation, robotics and more. Youth are able to connect to each other using the HTYN dedicated online learning portal, which includes video conferencing and an educationally focused social network system where youth can upload digital projects and develop a life-long portfolio of work and a record of learning outcomes to share with peers, family, their school and potential employers or for college acceptance. Many HTY youth are eligible to apply for HTYN Scholarships to study at a college or a higher learning program, ensuring every young person can fulfil their potential and aspirations.

High Tech Youth Academy

HTYN mediates from both an informal learning environment to formal learning opportunities for youth to gain recognized credentials while they are still at high school. The Academy provides youth +16 years and up the chance to achieve industry certification (such as Adobe and

Microsoft certification) including an associated under-graduate course of study in indigenous digital design (New Zealand and Fiji currently).

High Tech Youth – Tech Shed

The "Tech Shed" allows young people access to hands-on technology such as 3d printers, computer laser cutters, motion capture and 3d scanning technology etc., that are principally focused on supporting those young people who choose to venture towards social enterprising pathways and capacity to start their own digital business.

High Tech Youth – Research Centre "Te Rongo Haeata Community Informatics Group". HTYN promotes evidence-based praxis, acknowledging too there is an emergent field of research in particular for indigenous youth, and their promotion and engagement in Science Technology, Engineering and Math (STEM). Currently the Centre has multiple research projects focused on STEM learning, assessment and teaching constructs.

Value Proposition of the High Tech Youth Network

The Asia Pacific region, and in particular Pacific Island States are seen as remote and hard to reach. It is only recently that the capacity exists to connect young learners to the emergent global broadband economy. HTYN is strategically focussed on both up-skilling and then connecting youth directly to the high tech sector in situ of their own immediate communities. More over this creates an entirely new economic value proposition for vulnerable states whose traditional export earnings are agriculture and tourism, which is constantly at threat by environmental factors. HTYN is investing in a future digital work force that can remain online and productive, and providing new frontiers of economic development for Pacific people. HTYN has established partnerships with companies like Oktobor animation (a production house for Nickelodeon) along

with significant support by Microsoft's Youth Sparks program and the Adobe Project 1324 program that together provides real access and tools in the high tech world, for youth to be gainfully employed in the digital economy, while remaining on their home islands or states.

Does High Tech Youth Network work?

Significant evidence exists that shows that indigenous youth, and students of color have disengaged in STEM; further more recent reports (US Today 31 May 2014) released by silicon valley employers such as Google show that there is substantial disparity around both engagement of any person of colour (less than 1.8%) or females involved in the industry.

HTYN through longitudinal data collected by the SRI research centre in California tactically shows HTY Studios both engage youth of color in STEM learning (just over 93% of all students enrolled in Studio's) and the female quotient currently sits is at 47.3%. (SRI 2006-2015 Youth Impact Evaluation.

SRI set about understanding what impact attending a Studio has on specific skills sets that are particularly salient when addressing reengagement in both STEM and long-term goal setting (meta-cognitive skills).

In the 2013 release of longitudinal data on Studio's SRI researchers found a scientifically significant co-relation between high attendance at a Studio (83.4% of youth attend voluntarily a Studio more than 3 times a week for more than >3 hours per session) and the direct impact on socio-emotional constructs (non-cognitive skills such as communication skills, collaboration and complex problem solving skills). 91% of all youth included in the study scored in the upper quotient of testable non-cognitive skills.

Recent meta-analysis of such programs like HTYN that focus on digital project based learning, in after school environments indicate that high non-cognitive skills have a significant impact on both academic and long-term development opportunities in higher learning and career opportunities (Durlak & Weissberg, 2007).

More over all OCED Countries are moving towards 21st Century educational constructs that focus on how students collaborate using technology. The 2015 PISA bench mark tests for all students includes specific testing constructs around collaborative problem solving (CPS) skills, which includes measures around how students collaborate with peers across locations (such as use of social networks and across international borders). HTYN is one of the very few international organisations that are both tactically focusing on this area, and are collecting "big-data" as a formative assessment tool to inform iterative and dynamic taxonomies that address both learning and teacher praxis associated with STEM.

Needs

...with special focus on inclusion of Native Hawaiian student and their families in extended collaborative culture based learning opportunities

There is an urgent need for meaningful, age-appropriate STEM, digital and design thinking teaching materials and teaching guides for young learners, materials that are designed in such a way that those who are not already fluent in the language can use them effectively.

Moreover, low socioeconomic status, culturally and linguistic differences that limit Native Hawaiian participation in public school effect the achievement of future academic success and entry into technical careers. Very few Hawaiians in the state serve in technical occupations (less than 700, census 2010 estimate). Moreover, our views as school and community-based science

educators are shaped by our work in Hawaii, the world's most remote chain of islands. Prior to Western contact in 1778, cultural survival required constant monitoring, analysis, and responding to changing societal and environmental conditions. Long-term, place-based knowledge was associated with an ethic of malama (care) and kuleana (responsibility) that supported resilience and sustainability. Many kanaka maoli (Native Hawaiian) families continue subsistence practices that rely on ecological knowledge that seldom connects to school science. Disconnects between knowledge valued at school and home may contribute to kanaka maoli children scoring 11% lower in math and 10% lower in reading than peers on the Hawaii State Assessment examinations (Hawaii Department of Education 2010). Castagno and Brayboy (2008) note: "The most obvious, but also most lacking, knowledge among teachers is an awareness and understanding of Indigenous cultures, histories, and political issues" (p. 972). An example in science education is the recent removal of a culturally grounded Hawaii State science content standard, "Malama I Ka Aina, Sustainability" upon the recommendation by an outside consulting group.

The proposed project will focus on serving and addressing the needs of disadvantaged individuals of the following project areas; east and west Kauai and east Hawaii islands, predominantly known as Hilo. The east Kauai Area, also referred to as Kapaa, is home to almost 25,000 residents from the neighborhoods of Hanalei, Kapaa, Anahola, Kealia, Moloaa, Wailua, and the surrounding areas. The Kapaa Complex serves the area and consists of one high school (Kapaa High), one middle school (Kapaa Middle), and three elementary schools (Hanalei, Kapaa, and Kilauea). The age distribution here is similar to the rest of the State, with somewhat higher proportions of children ages 5 to 19. The ethnic makeup of this area is mixed, with relatively higher proportions of Native Hawaiians and Caucasians and relatively lower

proportions of Asians and Other Pacific Islanders than the State as a whole. More than one-fourth of the people here identify themselves as Hawaiian or Part-Hawaiian (Centre on the Family, n.d.). The NH population represents 25.9% (17,374 Native residents) of the Kauai population (estimate at 67,091, Census, 2010).

Almost 68% of the young children ages 5 and under have two working parents, yet almost 17% of young children live in poverty—a percentage that is higher than the State average. Consequently, a slightly higher percentage of East Kauai Area families receive benefits such as food stamps and Temporary Assistance to Needy Families (TANF), compared to the State as a whole. The per capital income is slightly lower than the State average, but the percentage of residents who own their own homes is higher. Most of the adults in this community have completed high school, but the percentage with college degrees is lower than the State average.

On the SAT, a high proportion of 3rd graders in east Kauai do poorly. Fewer teachers, parents, and 8th graders report that their schools are safe than in most other communities in the State, and almost half of the adolescents who responded to a statewide survey of students reported a lack of parental supervision. Only three other communities in the State have a higher percentage of "idle teens" (not in school and not working).

West Kauai, in which the Kekaha community is located, geographically, it is the most southwestern small town in the U.S.A. Kekaha is the 4th largest community on the island of Kauai and is situated 17 nautical miles from the privately owned island of Niihau that limits residency exclusively to the families of Native Hawaiians. Kekaha is a rural plantation community that serves civilian and military families from the Barking Sands and Kekaha areas. Unemployment here is higher than the State average, and the per capita income is in the bottom

third of the State. The percentage of individuals over age 65 living in poverty is higher than in most other communities. Kekaha has the third-lowest percentage in the State of adults who have completed high school and less than 14% earned a college degree. Kekaha Elementary is one of six schools in the Waimea complex, which consists of one high school (Waimea High), one middle school (Waimea Canyon Middle), and 4 elementary schools (Eleele, Kalaheo, Kekaha, and Niihau) (Center on the Family, n.d.).

The Hilo-Laupahoehoe-Waiakea Complex is located on the island of Hawai'i, and consists of 14 schools and four (4) charter schools. This area has a population is estimated at 43,000 people (Census, 2010), with an ethnic makeup that differs from the rest of the Native Hawaiian Education Council Needs Assessment Report State in that there is a much lower percentage of Caucasians (12%) and higher percentages of Asians (46%), Native and Part-Hawaiians (29%), and bi- and multi-racial groups (30%). The per capita income in the Central Hilo Area is lower than the State average, and the unemployment rate is slightly higher. More than 25% of the children 4 years and under are living in poverty. Hawaii County reported 65.5 percent of students qualifying for free and reduced lunches in 2012, the most recent year for which data was available. The state average was 49.9 percent for the same year (Annie E. Casey Foundation's Kids Count Report, 2012). In a Statewide survey of 6th, 8th, 10th, and 12th graders, more than half of the adolescents responding in this community reported poor parental supervision (Centre on the Family, n.d.).

Seventy-nine percent of the schools in which Native Hawaiians are predominantly enrolled are lower quality schools with less fully credentialed teachers and are more often in corrective action (Kaniaiapuni and Ishibashi, 2008). Hawaiians' lower socioeconomic status, cultural, and linguistic differences are frequently not well accommodated by the public school systems.

Consequently, NH student performance is often compromised in such school settings. Teacher inexperience with cultural differences, differing teaching and learning styles and lack of teacher training have contributed to higher than average referral rates of NH students to special education classes.

Native Hawaiian students are found to score the lowest on standardised tests of any ethnic group in the public school system state-wide (Native HI Educational Assessment, 2005; Kaniaiapuni and Ishibashi, 2003). School absenteeism is the highest among NH public school students, which is a contributing factor to the high Native Hawaiian dropout rate and low academic performance levels. Obstacles within the school as well as problems at home can negatively impact NH student interest in pursuing future training or education. A substantial number of students are not prepared to find employment or pursue additional education after high school (Will, 1986, Lipsky and Gartner, 1992, Cooke, 2001, SEDL, 1995). Hawaii has the highest percentage (38%) of students who fail the military's entrance exam (the Armed Forces Qualification Test, comprised of four academic subtests of the ASVAB (Education Trust, 2010).

In contrast to the public school experience, NH immersion students perform better in standardised measures (e.g., SAT math and reading tests); have lower absenteeism rates and experience little or no ethnic bias compared to their public school counterparts (Kanaiaupuni and Ishibashi, 2005). Immersion schools are based on cultural compatibility, in which schooling is found to be more effective when there is cultural congruence between students and the socio-cultural system of the school. The immersion schools provide learning environments with greater teacher involvement, social support and encourage each student's interest in the joy of learning (PASE, 2003). Since enrolment in Immersion Schools is voluntary, family expectations differ

from parents whose children go to public school (Kaniaupuni and Ishibashi, 2005, PASE, 2003). A case in point as to the efficacy of the Hawaiian focused and immersion schools may be seen in evaluation data from previous years of a similar program that has been discontinued due to lack of funding; Native Hawaiian students continue to be challenged socially and academically; a combination of poverty, lack of parental supervision, low expectations and low levels of school commitment contribute to risky behaviors among adolescent students with involvement in substance abuse, early sexual activity, and possible juvenile delinquency (UH Centre on the Family; Andrade, 2003, Kanaiaupuni, and Ishibashi, 2003; PASE, 2005, Census, 2000; PASE, 2004).

Significance

The Project will address students ages 8 to 18 (age is not an absolute criteria for inclusion) though grade twelve; identified as the most socioeconomically disadvantaged in Hawaii. The Project will address the following needs: 1) to create culturally authentic programs focused on STEM and career tech education (CTE); and 2) to increase the workforce employed in STEM and media technology careers for the State of Hawaii. (3) Focus on building a state wide digital learning community through investment in systems, advanced technologies such a educational tele-robotic, and training for staff, mentors, and participating teachers In response to these needs, the High Tech Youth Network has created a rigorous academic and culture-based education program in- and after-school utilizing partnerships throughout the community, on the "main-land" and internationally.

The 21st century is challenging our notions around how we learn and how we will make a living in the future; not only because of the sheer pace of change, but rather our inability or reluctance to change (Toffler, 1970). Similarly Prof. Seymour Papert of MIT Media Labs notes that now

more than ever we need to move beyond just seeing technology in schools as an aid or yet another subject to learn, but rather radically redesigning schooling itself, where technology is integrated across all aspects of learning and living, including beyond the classroom (Papert, 1999). In reality young people as early adopters of technology have moved out of our classrooms already, where learning has become ubiquitous, anytime anywhere; equally though they need caring mentors and the support to ensure this learning is meaningful, productive and culturally authentic. So, where many institutions are focused on teaching students to be digitally literate in the "subject of technology", The High Tech Youth Network focuses on connecting communities of learners together utilizing culture to construct digital learning competencies that focus on how the learner navigates through a highly changeable digital ecosystem (which includes both software and hardware) and the relevant skills associated with this; including complex problem solving, team and communication skills, concept maturation and project management skills. These set of competencies are specifically what the "high tech" industry is seeking in new employees and what Prof. Mitchell Resnick (MIT) calls being digitally fluent. The driving force of digital fluency is a result of improved levels of social and cultural capital. Social capital being "the extent to which members of a community can work and learn together effectively" and cultural capital is the "various forms of knowledge, skills, abilities, and interests, which have particular relevance or value within a specific culture or community", (Pinkett, 2002). Cultural capital is a vital component when working with youth and technology. If young people are not able to stand strong in their own culture and family values, they too can succumb to this fast paced media driven environment and run the risk of loosing their identity, indigenous language and creativity – the very thing that brings innovation and value to the high tech space.

Example:

Hawaii Island's high poverty rate is reflected in the Connection Public Charter School's (CPCS) student population. Approximately 77% of CPCS students receive free or reduced price meals. According to Mel Riddile, of the National Association for Secondary School Principals, "Researchers report that perhaps the only true linear relationship in the social sciences is the relationship between poverty and student performance. While there is no relationship between poverty and ability, the relationship between poverty and achievement is almost foolproof. To deny that poverty is a factor to be overcome as opposed to an excuse is to deny the reality that all educators, human services workers, law enforcement officers, medical professionals and religious clergy know and have known for years."

Studio SHAKA was established in 2012, as the first HTYN studio in Hawaii and sponsored by CPCS. It is a reflection of the community it serves and strives to support highly engaged and creative youth, doing amazing things alongside positive and encouraging adults. Studio SHAKA members have a variety of choices of activities after school every day. These activities are based on the individual interests of members. Some choices are extensions of projects and/or classes currently offered in the school's regular day program. Choices are designed to positively influence members' motivation and achievement. Nearly 80 students currently attend Studio Shaka's after-school program. In 2012 and 2013 the data reported 67 students in grades 6-12. The average days absent decrease from 5.7 in 2012 to 3.6 in 2013; with an aggregate total of 380 to 244 days. The studio experienced a dramatic increase in school attendance in 2012 and 2013 for 28 students in grades 9 – 12. The aggregate total of students' attendance significantly decreased from 208 days to 34 days absent. Overall, 25 of the 28 students improved their attendance.

Native Hawaiians comprise approximately 21% of the State's population and are the largest group of all ethnic minorities in Hawaii's public school system at both the statewide level (27.6%) and for each school type: conventional public school (26.9%), conversion charter (44.2%), and start-up charter (49.1%) (Kamehameha Schools, 2009). Forecasted growth rates show that the Native Hawaiian population will increase at a faster rate than most other ethnic groups in the State of Hawai'i (Hsu & Nielson, 2010) with keiki (0-4 years) and opio (5-19 years) comprising the largest age groups.

Native Hawaiians represent the highest percentage of economically disadvantaged youth in Hawaii's public school system. In 2010, 43.9% of all public school students in Hawai'i were eligible for the free and reduced cost lunch program. Among NH students in the public school system, more than half participated in the subsidised school lunch program (52%), which is 14% higher than their non-Hawaiian peers. In predominantly NH schools, the average participation rate in the subsidised school lunch program in 2010 was 13% higher than the State average.

II. Service Summary and Outcomes

Proposed Project - goals, methods, objectives, and outcomes

Goals - *project design*

The design of this project is supported by the a range of resources for students, mentors, staff and participating teachers, especially within Hawaiian focused charter and immersion students who are the population intended to receive these services. In addition, intended services will also target at-risk youth from broader Hawaiian community, and public schools. The key priority areas to be addressed include:

- the educational needs of at-risk children and youth including those in danger of not graduating.
- needs in fields in which Native Hawaiians are underemployed.
- the use of Hawaiian language in instruction.
- improving achievement and high school graduation rates.
- Students participating in the program will show improvements on measure such as school attendance, classroom performance, and decreased disciplinary actions or other adverse behaviors.

Methods

- hands on experiential learning approach with emphasis on STEM

According to the Department of Business and Economic Development and Technology (DBEDT), Hawaii's technology sector grew jobs at a 3.3% growth rate compared to the overall Hawaii economy at 2.5% from 2002-2007. Technology jobs also paid 38% higher earnings than the average worker in Hawai'i. These jobs are forecasted to grow 61% faster than the rest of Hawaii's economy, and 77% of these jobs will require postsecondary education, particularly in STEM-related fields. The effort to improve STEM skills in Hawaii is critical to address Hawaii's serious and ongoing challenges in its educational performance and workforce development efforts. These challenges limit the economic future and professional opportunities for our youth, and limit our statewide economic development opportunities (MySTEM Hawai'i, 2010).

In addition to the educational and economic need for improving STEM achievement in Hawaii, national research on students and STEM careers shows that experience with hands-on content is an important element for encouraging students to aim for mathematical and scientific careers (Brody, 2009). If young kids get "turned on" to STEM through experiential learning, like cultural-based education (CBE) during these formative years, they are more likely to choose science and math electives in high school and college (Education Development Center, 2008).

- supported by Cultural-Based Education (CBE)

In a Native Hawaiian context, culture-based education (CBE) uses the natural and cultural history of the community, and emphasises hands-on, experiential learning experiences that more closely reflect the heritage learning style of Native Hawaiian students (Meyer, 1998).

Kaiwi and Kahumoku (2006) found that the introduction of a Native Hawaiian approach to analyse literature, by acknowledging and validating students' perspectives, really empowers them by demonstrating a sustained connection to ancestors, greater appreciation for parents and grandparents, and an increased desire to learn. Other researchers contend that CBE has also an emancipatory nature; it guides students in understanding that no single version of "truth" is total and permanent (Banks & Banks, 2010; Gay, 2010). However, for this, teachers should make authentic knowledge about different ethnic groups accessible to students, including increased concentration on academic learning tasks, insightful thinking; more caring, concerned, and humane interpersonal skills; better understanding of interconnections among individual, local, national, ethnic, global, and human identities; and acceptance of knowledge as something to be continuously shared, critiqued, revised, and renewed (Gay, 2010, p. 37).

Thus, to increase student success, it is imperative that teachers help their students to bridge the discontinuity between home and school cultures and contexts (Allen & Boykin, 1992). A CBE environment minimises the students' alienation as they attempt to adjust to the different "world" of school. To this effect Skutnabb-Kangas et al., (2009) suggest: "Marginalised peoples who undergo culturally and linguistically appropriate education are better equipped both to maintain and develop their cultures and to participate in the wider society" (p. xvii). It means that CBE is empowering because it enables students to be better human beings and more successful learners.

- encouraging bi-lingual learning

In a recent brief, the Native Indian Education Association (NIEA) reviewed the research on CBE. They found that successful programs for Native students are those that combine CBE with high academic standards (NIEA, 2011). The evidence collectively indicates a positive relationship between improved academic outcomes among Native students and the use of Native language, CBE practices, and high expectations and learning standards (Kamehameha Schools, 2010; Klump & McNeir, 2005; McCarty, 2003; Lipka, 2002; Smith, Leake & Kamekona, 1998).

Adding to this body of evidence is the recent work by Native Hawaiian researchers that resulted in the first large-scale empirical study on culture-based education in Hawai'i (Kana'iaupuni, Ledward, & Jensen, 2010). The study provides sound evidence that culture-based educational strategies positively impact student outcomes—including math and reading scores—particularly for Native Hawaiian students. Data from the study demonstrate that cultural approaches have socio-cultural benefits (e.g., they strongly enhance relevance and relationships at school) as well as academic benefits (e.g., increases in academic motivation, higher math and reading scores). Hence, the continued growth of CBE model to better serve Native Hawaiians requires a multi-level educational intervention that can stimulate student academic skills and an interest in career tech development and training.

Hawaiian immersion is seen by other Native American peoples as a national model to be followed in revitalising their endangered languages while gaining the scientifically proven cognitive advantages of very high-level bilingualism (Pease-Pretty On Top, 2003). Like immersion programs elsewhere in the world, schools taught through Hawaiian have tended to produce students who outperform their peers academically (Fortune, Tedick & Walker, 2008).

Results from the first longitudinal evaluation of the HLI program (Slaughter, 1997; Slaughter et al. 1995) suggest that the HLI program has been able to promote fluency in the oral Hawaiian language and has also taught students how to read, write and do mathematics through the medium of the Hawaiian language. Furthermore, assessment in English of reading and mathematics indicates that HLI students are also able to demonstrate achievement when tested through the medium of the English language.

Objectives

To achieve a successful CBE program the project will operate in our current cohort of HTY Studio's after-school and the investment in new sites, with the goal of developing culturally authentic design thinking praxis at all levels to impact ICT and digital learning. Additionally, the project will provide college preparation, student career tech development, mentoring and training, scholarships for STEM education after high school completion, and community focused service activities that build upon cultural identity and cultivate the integration of traditional Hawaiian and Polynesian practices of science, technology, engineering and math to enhance STEM skills.

The project will address several issues related to the development of highly qualified students who have both the will and skill to successfully enter educational institutions and complete accredited programs in various STEM fields. Project staff will mentor school partners in developing culture- and standards-based curriculum with a focus on STEM application and will be trained in inquiry-led science through hands-on, problem-based approaches using outdoor lab and field studies. Exposure to 21st century instructional methodologies and access to media and

technology resources for engaging CBE and STEM learning opportunities that will provide a more consistent environment for learning.

Various age and grade appropriate activities, academic support, and scholarship assistance will be provided to increase students' abilities in math, science, and reading as a foundation for post secondary education in STEM related fields. The career development focus will be at the high school level with activities designed to improving achievement and high school graduation rates by providing CBE exposure to media and technology.

Early emergent literacy will also be supported through the bi-lingual literacy. Fully acknowledging the linguistic and cultural heritage of children in the context of schooling and, in particular, making that heritage a part of the school curriculum and ensuring that it is presented in a way that is rewarding and enjoyable, is known not only to increase children's sense of self-worth, but also to lead to more positive attitudes to schooling, higher attendance rates and higher levels of academic achievement overall. Such increase in overall academic achievement is attributable to a number of factors. One of these relates to the cognitive advantages associated with bilingual development.

Priorities

At the outset the project will be guided by an Advisory Council, drawn from the host organizations ohana, which could include teaching staff, students, parents, kupuna, College academic staff and ICT industry mentors to assure that the project objectives aligns with;

College and Career Readiness and assure that the project address the following needs:

- to create opportunities for young people to engage in building self-worth and build self-efficacy by engaging in culture-based education and focused literacy program;
- to create CBE programs focused on STEM and career tech education (CTE); and

- to increase the workforce employed in STEM and media technology careers. In response to these needs, the High Tech Youth Network has created a rigorous academic and culture-based education program in- and after-school utilising partnerships throughout the community.

with the following priority outcomes;

- the educational needs of at-risk children and youth including those in danger of not graduating;
- improve reading and literacy
- improving learning outcomes in the areas of language and literacy development, cognition and general knowledge, and approaches toward learning; with emphasis on STEM core subjects.
- improving achievement and high school graduation rates.

In addition students participating in the program will show improvements on measures such as school attendance, classroom participation/performance, decreased disciplinary actions and other adverse behaviors.

Outcomes

At the middle and high school levels the project will: 1) Provide volunteer job experience in school and community organisations and businesses; 2) Improve study habits and develop critical thinking skills; 3) Identify and enhance individual transferable skills developed through culture, school and community based activities; 4) Develop transferable skills to further STEM-careers at the postsecondary level; 5) Engage students in learning about local, state, and national STEM occupations; and 6) Develop an inventory of personal skills, values, and occupational interests.

Resources - sustainable plan to coordinate federal, state, and local programs with private donor contributions

HTYN's strategic intent for the Oceanic region is to connect young people to support 21st century personal development learning pathways towards higher learning, careers, and social enterprising opportunities and beyond. Parents/Guardians are encouraged to take a proactive approach to their child's education. Volunteerism is encouraged. Gatherings where students present evidence of learning coupled with informal discussion/meetings take place at least quarterly throughout the school year. Community partnerships have been formed with many local community and/or government entities for example the Hilo Downtown Improvement Association; the University of Hawaii; Hawaii Community College; the East Hawaii Cultural Centre; Gemini and Suburu Observatories; the State Department of Land and Natural Resources; and the Palace Theatre. These partnerships manifest themselves in the school by creating opportunities for students to participate in artistic, cultural, scientific, athletic, character building, historical, geological and leadership projects.

Management Plan

HTYN provides leadership, technology, training, a research centre & resource development to an affiliated group of partners across the region – and working alongside other not-for-profit organisations, for-profit corporations, Governments, and forward thinking angel philanthropists – each contributing as little or a much as they can, to see young people from underserved communities being transformed into High Tech innovators. However the real success of the Network is seen in how young people and communities are able to connect and share their knowledge with each other across the region. It is this unique approach of capturing

dynamic, up-to-date learning that sets the Network apart as a leader in high tech education and broadband economic development.

Management will provide oversight to the project to achieve the program objectives with monitoring and adherence to program activities, milestones and financial projections. Responsibilities of the staff are clearly defined to accomplish all project tasks. Project director will assure timely recruiting, interviewing, hiring and training of project personnel. As needed, staff shall be provided training and updates which help to clearly focus on the achievement of program objectives and the implementation of linked program activities.

The purpose of the Quality Assurance / Quality Improvement (QA/QI) program is to assure that there is a systematic, planned, collaborative process that measures performance, assesses the quality of services provided, and ensures ongoing improvement. This project will serve as a guide to identify, prioritise, coordinate, and implement actions to continually improve the quality of the project. The quality assessment and improvement process is driven by data. Data collection processes will continue to be developed at the onset of the program year with recommendations from staff, school personnel and the evaluator. These personnel shall work together in refining program performance measures to determine the extent to which program objectives have been met. The Project Director will work closely with HTY Studio staff and community partners to gather data and feedback from participants of services to ensure continuous improvement in project.

Proposed staffing includes support for the HTY State Manager, Project Director, and stipends for HTY Studio staff to attend training and develop a local and state-wide learning community.

The High Tech Youth Network is an equal opportunity employer and shall encourage employment applications from persons who are members of groups that have been traditionally underrepresented and who are representative of the east and west Kauai and east Hawaii local communities. Qualified persons with both academic and professional qualifications and experiences will fill all staff positions; the project director will require a minimum of a Masters degree. Start-up of the new project cycle shall be easier to implement with staff dedicated to the project and expertise in coordinating these services are known and trusted by the communities they serve.

III. Financial

Budget

1. The applicant shall submit a budget utilizing the enclosed budget forms as applicable, to detail the cost of the request.

2. The applicant shall provide its anticipated quarterly funding requests for the fiscal year 2018.

Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total Grant

3. The applicant shall provide a listing of all other sources of funding that they are seeking for fiscal year 2018.

   High Tech Youth Network, if DOE create an invitation will look to applying for the 21CLC grant to help the operations and running of individual Studio's on Kauai and Hawaii.

4. The applicant shall provide a listing of all state and federal tax credits it has been granted within the prior three years. Additionally, the applicant shall provide a listing of all state and federal tax credits they have applied for or anticipate applying for pertaining to any capital project, if applicable.

   - High Tech Youth Network has no federal tax credits pending or been applied for

5. The applicant shall provide a listing of all federal, state, and county government contracts and grants it has been and will be receiving for program funding.

High Tech Youth Network has no other grants currently

6. The applicant shall provide the balance of its unrestricted current assets as of December 31, 2016.

   See Attached

IV. Experience and Capability

A. Necessary Skills and Experience

Listed below is the skills and experience of HTY staff, along with a reputable Board of Directors, patrons and corporate donors including Microsoft, Abobe, IBM and others

B. Facilities

N/A

V. Personnel: Project Organization and Staffing

A. Proposed Staffing, Staff Qualifications, Supervision and Training

Staff Qualifications

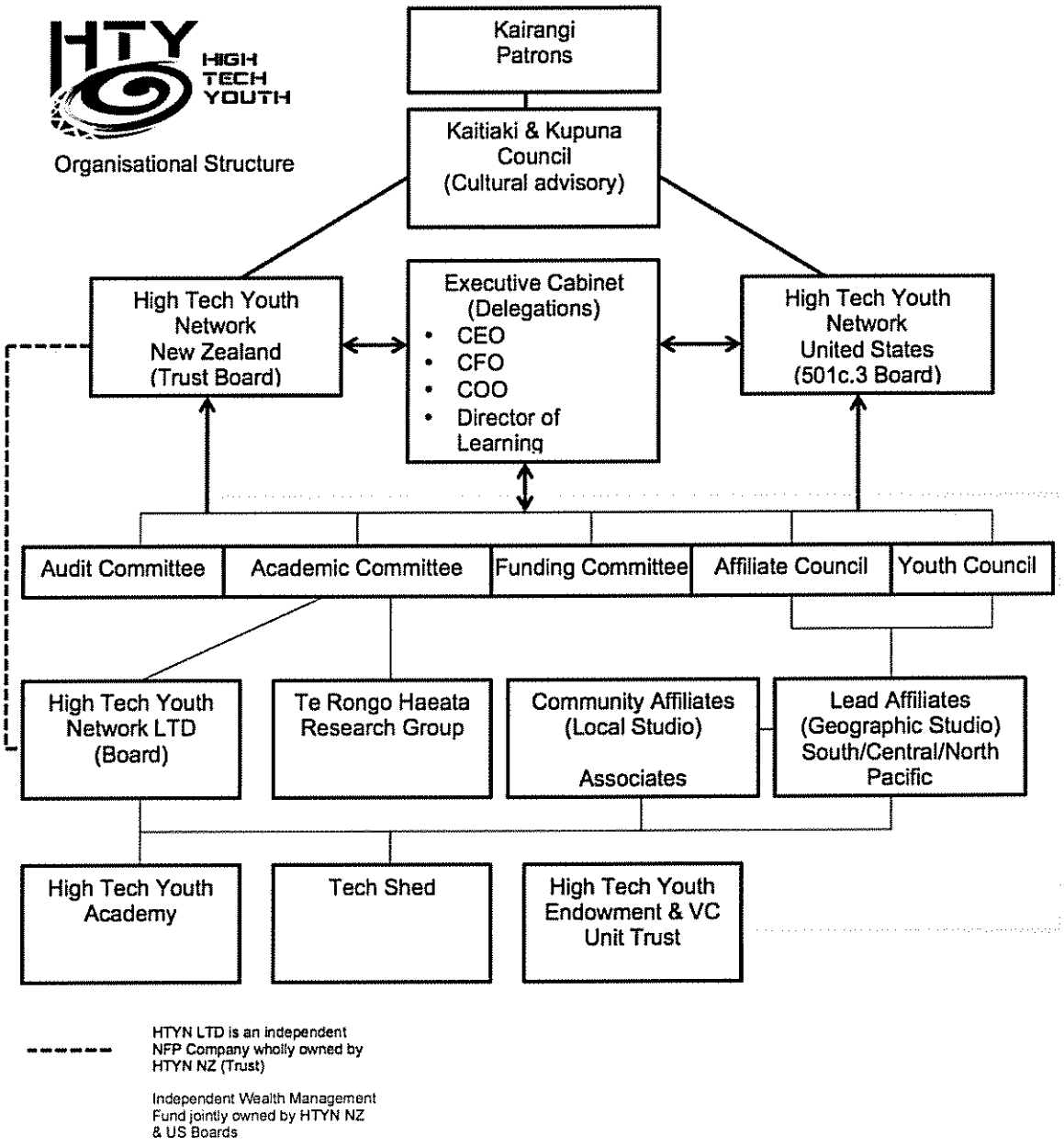
The proposed project director has doctoral degree in education, professional studies. She has worked professionally in Hawaii public and charter schools as a teacher, administrator, and consultant; she has served two terms on the State of Hawaii's Charter School's Network board of directors. The project assistant has worked for over ten years as a main office assistant. In addition to her coordination and secretarial skills, she has worked as a bookkeeper and administrative assistant. The academic specialist has a Master's degree in clinical Psychology with academic training and experience in educational research design. He has worked with the NH immersion and public charter schools for 12 years as an evaluator and consultant. The scholarship coordinator has a Bachelor's degree in Hawaiian Studies with extensive work experience in scholarship counselling working in the University of Hawaii System. The Tutor

Supervisor has a Bachelor's degree in Environmental Engineering, as well as, considerable training and expertise in math and science. He works well with the academic tutors and provides one-on-one tutoring for higher -level math and science students at the schools.

Cultural specialists are elders/community members who have high levels of expertise in areas that support the program academically and culturally. Likewise, any and all contractual and/or other key personnel will be sought through a fair and unbiased recruiting, interviewing, and hiring process.

B. Organization Chart

Organisational Structure



C. Compensation

Project Manager $42,0000
State Manager 25,000

VI. Other

A. Litigation

There is no current or past litigation for High Tech Youth Network

B. Licensure or Accreditation

N/A

C. Private Educational Institutions

N/A

D. Future Sustainability Plan

The proposal is seeking investment into the capacity building of the learning network and presence in Hawaii, that is to create scale. High Tech Youth Network has developed a licensed model that will take the assets of this learning community and be able to provide licenses (for a fee) to future schools and not-for-profit organizations. More over the initial cohort of Studios and their staff will become authorized trainers, and part of their day-to-day capacity is to provide training to new licensed HTY-Studio's, again forming part of the future revenue model. Finally this investment should elevate the profile of High Tech Youth in the state and future funders, through evidence based praxis form this project.

E. Certificate of Good Standing (If the Applicant is an Organization)

If the applicant is an organization, the applicant shall submit one (1) copy of a certificate of good standing from the Director of Commerce and Consumer Affairs that is dated no earlier than December 1, 2016.

See Attached

BUDGET REQUEST BY SOURCE OF FUNDS

Period: July 1, 2017 to June 30, 2018

Applicant: _____

BUDGET CATEGORIES	Total State Funds Requested (a)	Total Federal Funds Requested (b)	Total County Funds Requested (c)	Total Private/Other Funds Requested (d)
A. PERSONNEL COST	67,000			
1. Salaries				
2. Payroll Taxes & Assessments				
3. Fringe Benefits				
TOTAL PERSONNEL COST	**67,000**			
B. OTHER CURRENT EXPENSES				
1. Airfare, Inter-Island	3,000			
2. Insurance				
3. Lease/Rental of Equipment	8,000			
4. Lease/Rental of Space				
5. Staff Training	7,000			
6. Supplies				
7. Telecommunication				
8. Utilities				
9. HTY Studio operating Stipends	30,000			
10 Financial Administration / Reporting	15,000			
11. HTY Online Portal/Data-base initiation	20,000			
12				
13				
14				
15				
16				
17				
18				
19				
20				
TOTAL OTHER CURRENT EXPENSES	**83,000**			
C. EQUIPMENT PURCHASES				
D. MOTOR VEHICLE PURCHASES				
E. CAPITAL				
TOTAL (A+B+C+D+E)	**150,000**			

SOURCES OF FUNDING		Budget Prepared By:
(a) Total State Funds Requested	150,000	M Usmar (202) 905-0472
(b) Total Federal Funds Requested		Name (Please type or print) Phone
(c) Total County Funds Requested		
(d) Total Private/Other Funds Requested		Signature of Authorized Offici [redacted] Date 1/20/17
TOTAL BUDGET	**150,000**	Name and Title (Please type or print) Chief Executive Officer

BUDGET JUSTIFICATION - PERSONNEL SALARIES AND WAGES

Period: July 1, 2017 to June 30, 2018

Applicant: _____

POSITION TITLE	FULL TIME EQUIVALENT	ANNUAL SALARY A	% OF TIME ALLOCATED TO GRANT REQUEST B	TOTAL STATE FUNDS REQUESTED (A x B)
Project Manager		$62,000.00	70% OF TIME	$ 42,000.00
State Manager		$50,000.00	50% OF TIME	$ 25,000.00
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
TOTAL:				67,000.00

JUSTIFICATION/COMMENTS:

BUDGET JUSTIFICATION - EQUIPMENT AND MOTOR VEHICLES

Period: July 1, 2017 to June 30, 2018

Applicant: _____

DESCRIPTION EQUIPMENT	NO. OF ITEMS	COST PER ITEM	TOTAL COST
BEAM - Telerobic Devices	4.00	$2,000.00	$ 8,000.00
			$ -
			$ -
			$ -
			$ -
TOTAL:	4		$ 8,000.00

JUSTIFICATION/COMMENTS:

These enable ICT mentors to work directly with Students via remote locations directly in each HTY Studio

DESCRIPTION OF MOTOR VEHICLE	NO. OF VEHICLES	COST PER VEHICLE	TOTAL COST
			$ -
			$ -
			$ -
			$ -
			$ -
TOTAL:			

JUSTIFICATION/COMMENTS:

BUDGET JUSTIFICATION - EQUIPMENT AND MOTOR VEHICLES

Period: July 1, 2017 to June 30, 2018

TOTAL BUDGETED
8,000

TOTAL BUDGETED

HIGH TECH YOUTH NETWORK
STATEMENT OF ASSETS, LIABILITIES, AND NET ASSETS-CASH BASIS
SUBSTANTIALLY ALL DISCLOSURES OMITTED
December 31, 2016

ASSETS	
Cash	$ 19
TOTAL ASSETS	$ 19
LIABILITIES AND NET ASSETS	
Unrestricted net assets	$ 19
TOTAL LIABILITIES AND NET ASSETS	$ 19

No assurance is provided on this financial statement.

DECLARATION STATEMENT OF APPLICANTS FOR GRANTS PURSUANT TO CHAPTER 42F, HAWAI'I REVISED STATUTES

The undersigned authorized representative of the applicant certifies the following:

1) The applicant meets and will comply with all of the following standards for the award of grants pursuant to Section 42F-103, Hawai'i Revised Statutes:

   a) Is licensed or accredited, in accordance with federal, state, or county statutes, rules, or ordinances, to conduct the activities or provide the services for which a grant is awarded;

   b) Complies with all applicable federal and state laws prohibiting discrimination against any person on the basis of race, color, national origin, religion, creed, sex, age, sexual orientation, or disability;

   c) Agrees not to use state funds for entertainment or lobbying activities; and

   d) Allows the state agency to which funds for the grant were appropriated for expenditure, legislative committees and their staff, and the auditor full access to their records, reports, files, and other related documents and information for purposes of monitoring, measuring the effectiveness, and ensuring the proper expenditure of the grant.

2) If the applicant is an organization, the applicant meets the following requirements pursuant to Section 42F-103, Hawai'i Revised Statutes:

   a) Is incorporated under the laws of the State; and

   b) Has bylaws or policies that describe the manner in which the activities or services for which a grant is awarded shall be conducted or provided.

3) If the applicant is a non-profit organization, it meets the following requirements pursuant to Section 42F-103, Hawai'i Revised Statutes:

   a) Is determined and designated to be a non-profit organization by the Internal Revenue Service; and

   b) Has a governing board whose members have no material conflict of interest and serve without compensation.

Pursuant to Section 42F-103, Hawai'i Revised Statutes, for grants used for the acquisition of land, when the organization discontinues the activities or services on the land acquired for which the grant was awarded and disposes of the land in fee simple or by lease, the organization shall negotiate with the expending agency for a lump sum or installment repayment to the State of the amount of the grant used for the acquisition of the land.

Further, the undersigned authorized representative certifies that this statement is true and correct to the best of the applicant's knowledge.

High Tech Youth Network
(Typed Name of Individual or Organization)

[redacted]
(Signature)

11 Jan 2017
(Date)

Mike Usmar
(Typed Name)

CEO
(Title)

Department of Commerce and Consumer Affairs

CERTIFICATE OF GOOD STANDING

I, the undersigned Director of Commerce and Consumer Affairs of the State of Hawaii, do hereby certify that

HIGH TECH YOUTH NETWORK

was incorporated under the laws of Hawaii on 02/11/2013 ; that it is an existing nonprofit corporation; and that, as far as the records of this Department reveal, has complied with all of the provisions of the Hawaii Nonprofit Corporations Act, regulating domestic nonprofit corporations.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the Department of Commerce and Consumer Affairs, at Honolulu, Hawaii.

Dated: January 09, 2017

Director of Commerce and Consumer Affairs

To check the authenticity of this certificate, please visit: http://hbe.ehawaii.gov/documents/authenticate.html
Authentication Code: 269398-COGS_PDF-238374D2