




Funding STEAM Curriculum Development



WPI

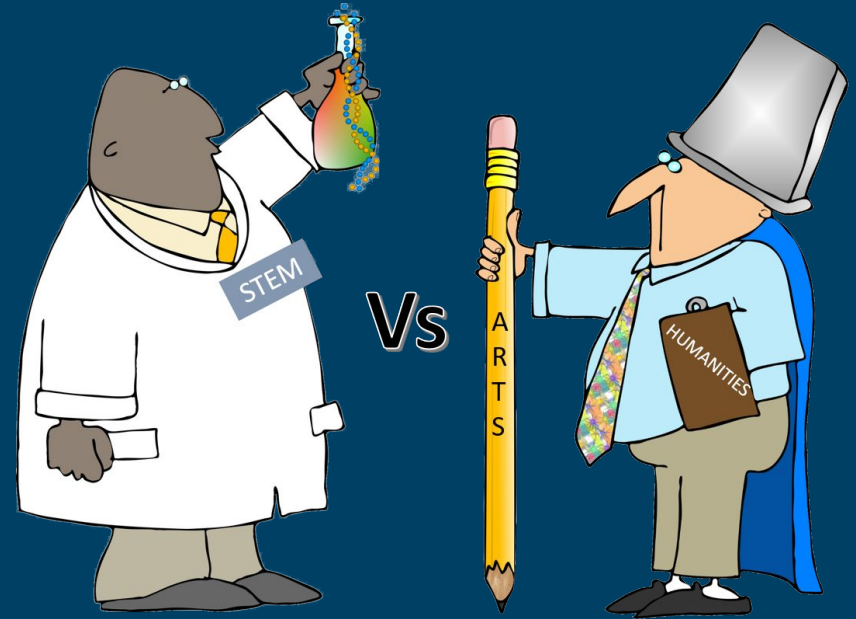
Jagruthi Maroju (BBT)
Orlando Pinel (CS)
Christian M. Schrader (AE)
Simone Williams (CE)



Background

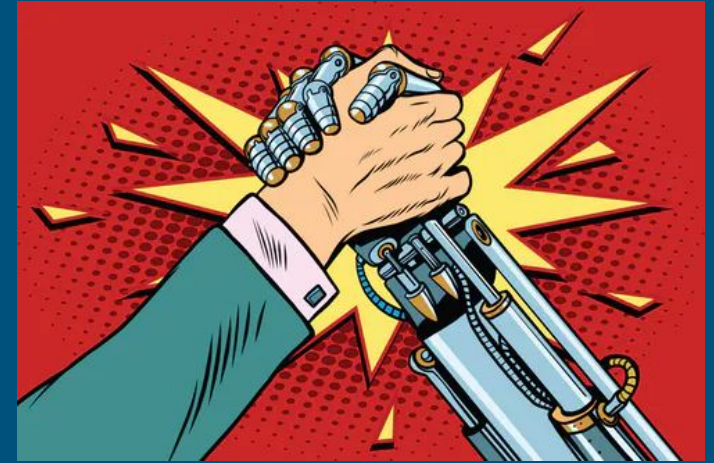
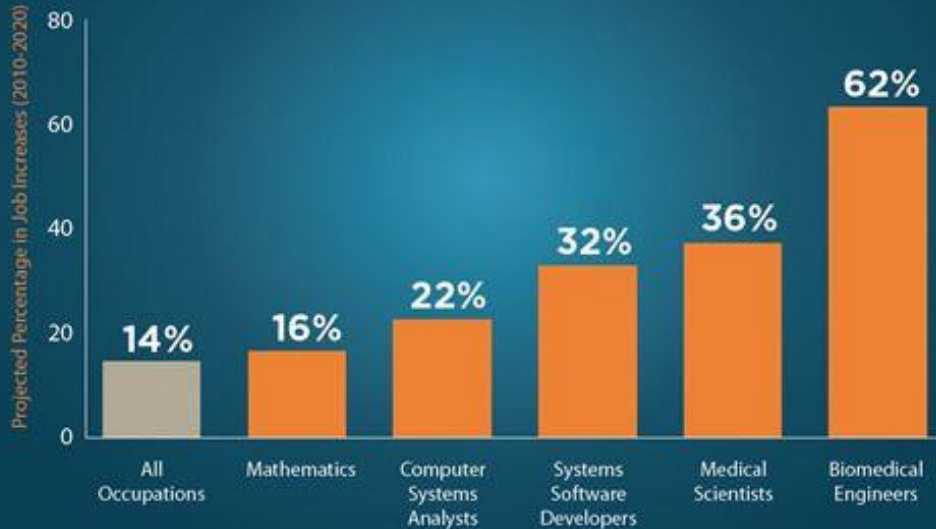


Economy & Education System



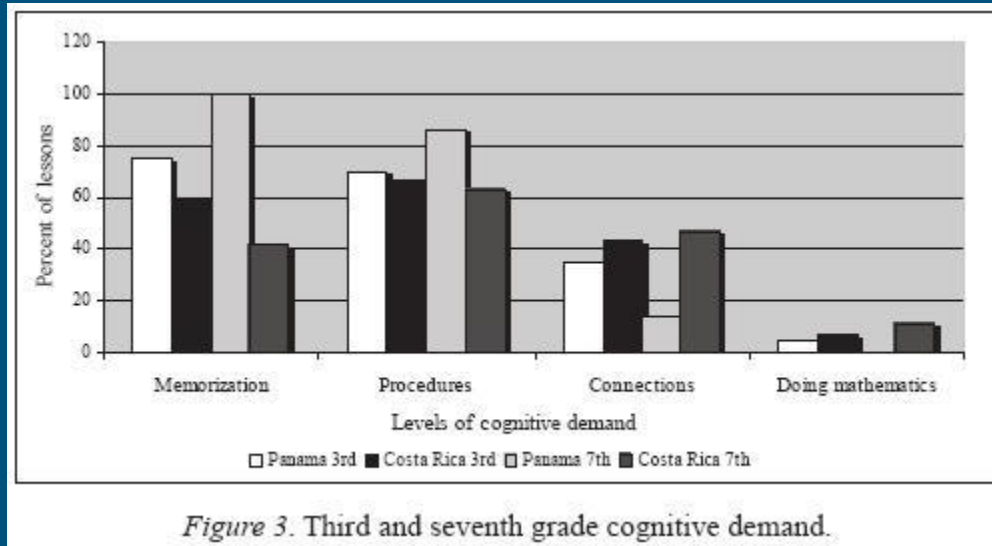
Panama's developing and emerging economy is threatened by economic disparity and an outdated education system.

PROJECTED PERCENTAGE INCREASES IN STEM JOBS: 2010-2020



STEAM is a fast growing field and Panama needs to embrace STEAM if it wants to grow as a country.

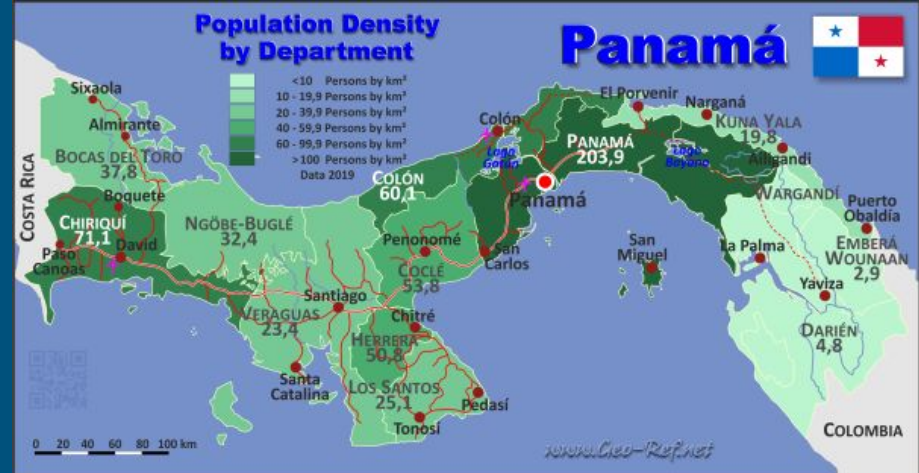
Panama's Curricula



Panama and Costa Rica's curriculum for 3rd and 7th grade (Carnoy, Luschei, Marshall & Sorto, 2009).

Sponsor

Fundesteam exists to solve both issues of Panama's economic disparity and an outdated education system by working to combat poverty with STEAM education.



Population density within Panama per km² (Erazo, Rodriguez & Sousa, 2015).

Project Goal

To increase Fundesteam's marketability and accessibility to funding opportunities in order to help the organization develop and expand throughout Panama.

Project Objectives



1. Create a funding database.



2. Conduct a written survey.



3. Upgrade Fundesteam's current website.



Deliverables

Funding Opportunities Database

- Adapted database based on the list of 66 donors provided by 3M.
- Used Pivot and Foundation Directory Online, two funding databases, to enhance.
- 42 potential donors
- 28 grant opportunities
- 14 possible partnerships
- No calendar made for grant opportunities



Funding Opportunities Database

Donor	Fund Category	Donor Info	Focus Area	Profile	Based in	Notes	Contact Name	Phone	E-mail	Mail	Inserted by	
1	The American Institute For Foreign Study Foundation	Institution	https://www.aifsfoundation.org/grants.asp	Education and Exchange Programs	The American Institute For Foreign Study Foundation helps people from many nations and cultures gain global competencies through firsthand, human interaction and opportunities to travel and study abroad.	USA	Partnership Possibilities. Offer grants, but for foreign study and exchange programs.	No direct contact		AIFSFoundation@aifs.org		Simone
2	Alstom	Corporate	https://www.foundation.alstom.com/submit-project	Transportation	Alstom SA is a French multinational company operating worldwide in rail transport markets, active in the fields of passenger transportation, signalling and locomotives, with products including the AGV, TGV, Eurostar, and Pendolino high-speed trains, in addition to suburban, regional and metro trains, and Citadis trams.	France	"Support a Project" based.	No direct contact		alstom-foundation@alstomgroup.com		Simone
3	Association for the Advancement of International Education	Institution	https://www.aaiie.org/	Education and Research	Main focus is on promoting exemplary school leadership and research-based, effective and innovative educational practices.	USA	Possible alliance for partnership or could become a member	No direct contact	1 609-716-7441		AAIE PO Box 3496 Princeton NJ 08543-3496	Simone
4	AT&T	Corporate	http://about.att.com/csr/home/possibilities/at-t-aspire.html	Communication	AT&T Inc. is an American multinational conglomerate holding company headquartered at Whitacre Tower in Downtown Dallas, Texas. It is the world's largest telecommunications company, the second largest provider of mobile telephone services, and the largest provider of fixed telephone services in the United States through AT&T Communications. Since June 14, 2018, it is also the parent company of mass media conglomerate WarnerMedia, making it the world's largest media and entertainment company in terms of revenue. As of 2018, AT&T is ranked #9 on the Fort 500 ranking as the largest United States corporations by total revenue.	USA	Supporting "innovation in education"	Norelie Garcia Selma Astudillo	norelie.garcia@att.com sastudillo@att.com			Simone
5	Autoridad de la Micro Pequeña Mediana Empresas (AMPYME)	Institution	https://ampyme.gob.pa/?page_id=27587	Public Agency	This is a public body created to encourage and support entrepreneurs as well as micro, small and medium enterprises.	Panama	Business focused		(+507) 500-5742	sarango@ampyme.gob.pa	Via España, Ave. Manuel E. Batista	Simone
6	Autoridad Nacional para la Innovación Gubernamental (AIG)	Institution	http://www.innovacion.gob.pa/acercade	Public Agency-Technology	It is the competent entity of the State to plan, coordinate, issue guidelines, supervise, collaborate, support and promote the optimal use of information and communication technologies in the government sector for the modernization of public management, as well as recommend the adoption of national strategic policies, plans and actions.	Panama	Technology focused	Irvin Haiman	(+507) 520-7400/7500	ihaiman@innovacion.gob.pa	Calle 61 y Av. Ricardo Arango, Edificio Sucre, Arias y Reyes, Nivel 300 Urb. Obarrio, Corregimiento de Bella Vista.	Simone
7	BAC CREDOMATIC	Corporate	https://www.baccredomatic.com/es-hn/nuestra-empresa/sostenibilidad	Finance	Entity regulated and supervised by the Superintendency of Banks of Panama	Panama	Strategic Donor for STEM Education	No direct contact	(+507) 210-4652		Avenida Principal, Panamá	Simone
8	BANCO NACIONAL	Institution		Public Banking System	Banco Nacional de Panama is the official banking entity of Panama that performs some central bank functions. Banistmo is the largest bank in Panama and Central America. It was founded in 1984 as Primer Banco del Istmo before it became part of the HSBC Group following its former parent company, Grupo Banistmo's acquisition by HSBC in November 2006. It was the subsidiary of HSBC Bank (Panama) S.A. until it merged into HSBC Bank (Panama) in 2009.	Panama	Official Bank of Panama. Possible entity of interest	No direct contact	(+507) 505-2000 (+507) 505-2612	aferrer@banconal.com.pa rdeleon@banconal.com.pa shenriquez@banconal.com.pa	Calle 55 y Via España, Torre Banconal.	Simone
9	Banistmo	Corporate	https://www.banistmo.com/wps/portal/banistmo/acerca-de/informacion-corporativa/sostenibilidad/	Finance	BASF SE is a German chemical company and the	Panama	Supporting Education	No direct contact		https://www.banistmo.com/wps/portal/banistmo/acerca-de/zona-de-contacto/		Simone

Grant Opportunities

Grantor	Fund Category	Grant Info	Focus Area	Profile	Based in	Notes	Special Requirements	Application Dates	Contact Name	Phone	E-mail
1 AT&T	Corporate	https://about.att.com/csr/home/society/education/accelerator.html	Communication	AT&T Inc. is an American multinational conglomerate holding company headquartered at Whitacre Tower in Downtown Dallas, Texas. It is the world's largest telecommunications company, the second largest provider of mobile telephone services, and the largest provider of fixed telephone services in the United States through AT&T Communications. Since June 14, 2018, it is also the parent company of mass media conglomerate WarnerMedia, making it the world's largest media and entertainment company in terms of revenue. As of 2018, AT&T is ranked #9 on the Fortune 500 rankings of the largest United States corporations by total revenue.	USA	Supporting "innovation in education"	Applications are closed for 2019 and reopen January 2020	February 2020	Norelie Garcia Selma Astudillo		norelie.garcia@att.com sastudillo@att.com
2 Secretaria Nacional de Ciencia, Tecnología e Innovación (SENACYT)	Institution	https://www.senacyt.gob.pa/convocatoria-publica-09-ara-proyectos-educativos-en-ciencia-y-tecnologia-2019/	Science and Technology	All the activities, projects and programs of SENACYT aim to strengthen, support, include and promote the development of science, technology and innovation with the purpose of raising the level of productivity, competitiveness and modernization in the private sector, government, the academic-research sector, and the population in general.	Panama	Priority for STEM. Date has expired, but should be considered for 2020	Application opens December 2019.	March 2020	No direct contact	507 517-0014	info@senacyt.gob.pa
3 Walmart	Corporate	https://walmart.org/how-we-give	Retail	Walmart Inc. is an American multinational retail corporation that operates a chain of hypermarkets, discount department stores, and grocery stores. Headquartered in Bentonville, Arkansas, the company was founded by Sam Walton in 1962 and incorporated on October 31, 1999. It also owns and operates Sam's Club retail warehouses. As of January 31, 2019, Walmart has 11,361 stores and clubs in 27 countries, operating under 55 different names.	USA	More focused on local grant giving within the US but does offer within Central America	Can apply here but applications are closed for 2019. Applications reopen February 2020.	Apr 2020	Mario Francisco González Islas	52830100 ext 18611	mario.gonzalez@walmart.com
4 Cargill	Corporate	https://www.cargill.com/about/community/education	Agriculture	Cargill, Incorporated is an American privately held global corporation based in Minneapolis, Minnesota and incorporated in Wilmington, Delaware. Founded in 1865, it is the largest privately held corporation in the United States in terms of revenue. If it were a public company, it would rank, as of 2015, number 15 on the Fortune 500, behind McKesson and ahead of AT&T.	USA	STEM Education priority; Application is sent based on invitation only in early August	STEM Organizations of Interest: Community organizations serving low – income populations with a high proportion of youth grades K -12. Ensure equitable access to STEM. Organizations with hands-on interactive programming/curriculum that improve the understanding of STEM topics. Provide teachers with professional development or access to STEM resources and knowledge to improve student persistence in STEM. Nonprofits that integrate programs that encourage interest in STEM for post-secondary education and potential careers in STEM fields.	September 2020	Stacey Smida, Grants Manager	800-227-4455	stacey_smida@cargill.com
John Templeton		https://www.templeton.org		The John Templeton Foundation (Templeton Foundation) is a philanthropic organization that reflects the ideas of its founder, John Templeton, who became wealthy after a career as a contrarian investor and wanted to support		Partnership possibilities; Does not seem to fund	Just submit an Online Funding Request (OFR) before being eligible to	2020 Deadline for OFR:			

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Written Student Survey

- Received responses from 13 students
- Ages ranged from 10 to 15
- Some questions asked:
 - How long have they been attending Fundesteam?
 - Did your parents study science and technology?



62%

said they would continue to study science and technology in
high school or college

Student Testimonials

How has your life been impacted by coming to Fundesteam?

“I have learned python and electronics which help me to be more interesting.”

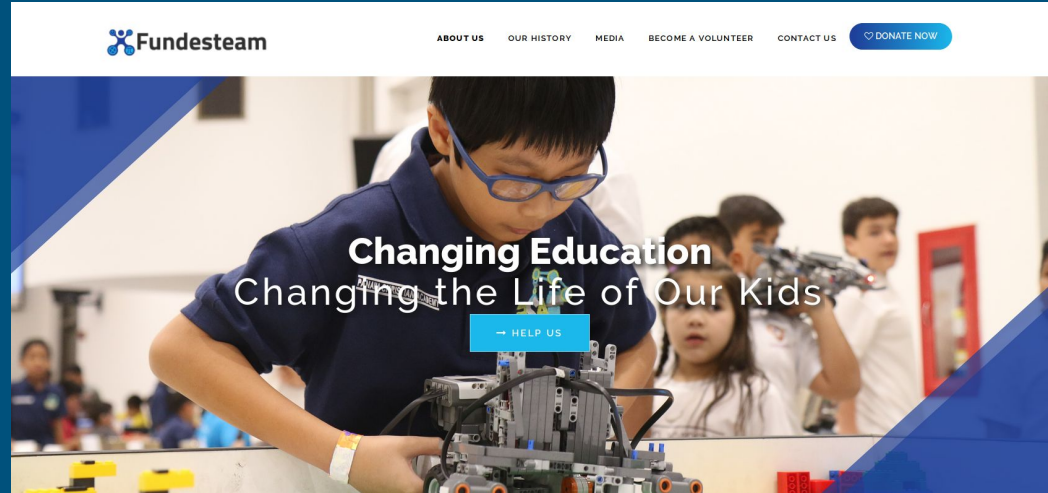
- Oliver la Cayo, 13,

“I’ve felt more relaxed and motivated to learn more of this [STEAM] fascinating world.”

- Santiago Szwarckopf, 15

Upgraded Website

- Changed color scheme to match logo
- Added and revised content to increase specificity
- Changed pictures to ones from Fundesteam
- Split content into 3 pages



Off-Brand Color Scheme


- Changed main colors to those on the Fundesteam Logo (Hex Code Colors #1bb8eb and #1f419b)

OUR VISION

TOGETHER WE CAN MAKE IT


With your help we can change the equation of poverty in Panama, eliminating the circle where limited access to 21st century education does not allow children from lower income families to prepare for well-paying jobs in the future.

HOW DO WE DO IT?




PROMOTING S.T.E.A.M.

The programs we support spark passion for innovation in STEAMs in the minds of children and youth.




EMPOWERING A GENERATION

Develop a structured thinking in problem solving as well as a spirit of leadership.



COMPETING INTERNATIONALLY


Organizing competitions so that children from all over the country celebrate their knowledge and can represent Panama internationally.



ORGANIZING DONATIONS

Equipping public schools with STEAM laboratories, which allow children to learn Programming, Robotics, Mathematics, etc.

OUR PROCESS



FIRST CONTACT

Public schools make the first move by contacting Fundesteam either through their website, an email, a phone call or by attending one of the many events that Fundesteam hosts. The school is then required to provide some background information and is put inside Fundesteam's database.

▼

Increased Specificity

- Added reasons behind the goals.
- Thoroughly described methods.

OUR MISSION TO CHANGE LIVES

Promote and develop educational programs that inculcate interest in the sciences, technology, engineering, arts and mathematics in the minds of children and youth through innovation, collaboration and problem solving, breaking the cycle of poverty and changing the lives of thousands of children as well as the future of our country.

OUR MISSION

TO CHANGE THE POVERTY EQUATION IN PANAMA

Promote and develop educational programs that incite interest in the fields of science, technology, engineering, art and mathematics in the minds of children and youth through innovation, collaboration and problem solving. Thus, breaking the cycle of poverty and changing the lives of thousands of children as well as the future of our country.

We chose this mission because we see a deep-rooted problem in the Panamanian social structure. People that are born into poverty never get the chance to escape it because they lack the resources and knowhow to make something with their lives. We seek to flip this system, which we know as the poverty equation, on its head by giving low income children exposure to fields that lead to high paying careers and opportunities to practice and develop skills in these fields. We aim to flip the poverty equation by investing in technology and education and betting on developing Panama from within.

Changed Pictures

- None of the pictures on original website had anything specifically relating to STEAM.
- Using all Fundesteam pictures better shows the reach and impact.



ABOUT US

We are a non-profit non-governmental organization, committed to the promotion and development of education in Science, Technology, Engineering, Arts and Mathematics (STEAM) directed towards children and youth at a national level, through the support of innovative educational programs.

OUR PROJECTS

- EQUIP PUBLIC SCHOOLS WITH ROBOTICS LABORATORIES
- ORGANIZE STEAM COMPETITIONS, WRO, SCIENTIFIC FAIR, FLL



DONATIONS



SPONSORSHIP



VOLUNTEERING

ABOUT US

We are a non-profit, non-governmental organization committed to the promotion and development of education of the Panamanian youth within the fields of Science, Technology, Engineering, Arts and Mathematics (STEAM) by employing innovative educational programs.

Our projects



SUPPLYING PUBLIC SCHOOLS WITH ROBOTICS LABORATORIES



ORGANIZING STEAM COMPETITIONS LIKE WRO, SCIENCE FAIRS, FLL

Split Content

- Having multiple pages helps increase readability.
- Main page is “About Us”.
- Added History, which has the origin and timeline of Fundesteam.
- Added Media, which includes news, testimonials, and photos.

High Trafficking Websites and Bloggers

Organized contact information for:

- Vlogs
- Highest trafficked websites
- People with relevance in the STEAM field





Recommendations

1. Define organizational structure and roles



2. Better reporting to stakeholders



3. Alliance with MEDUCA



4. Improve Social Media Presence



5. Define boundaries with PanamaSTEM



6. Provide students with guidance



Any Questions?

