Open Source Ecology

Product Marketing Strategy

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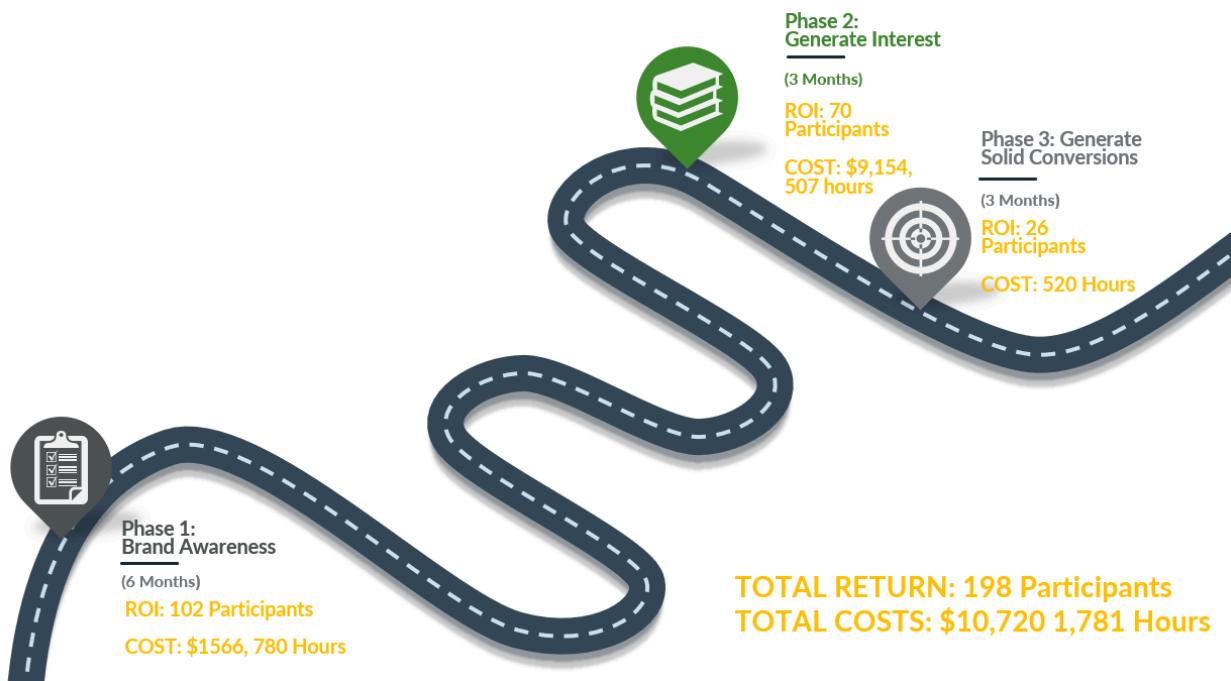www.180dc.org/uci

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Open Source Ecology advocates for using open source collaboration to build social enterprises and promote economic sustainability. Open Source Ecology does so by holding STEAM Camps, which teach participants essential technical and open source collaboration skills. They partnered with the team at 180 Degrees Consulting UC Irvine to help them devise a strategy to increase the number of participants and volume of the STEAM Camps to 12 STEAM Camps with 12 participants each. 180 Degrees Consulting developed a marketing plan which spanned a product and a brand awareness strategy to target technology enthusiasts who are specifically educators, students, social entrepreneurs, and makers that are between the ages of 18 to 45. Our estimations (assuming a 100% successful implementation) lead to a projection of 198 participants after 1 year of implementation. This report is turned in conjunction with a final presentation and an implementation plan.

For the purpose of this report, Open Source Ecology shall be interchangeably referred to as *client*, and/or *OSE*.

Given below is the final framework that will serve to be the basis of all the recommendations for this project.
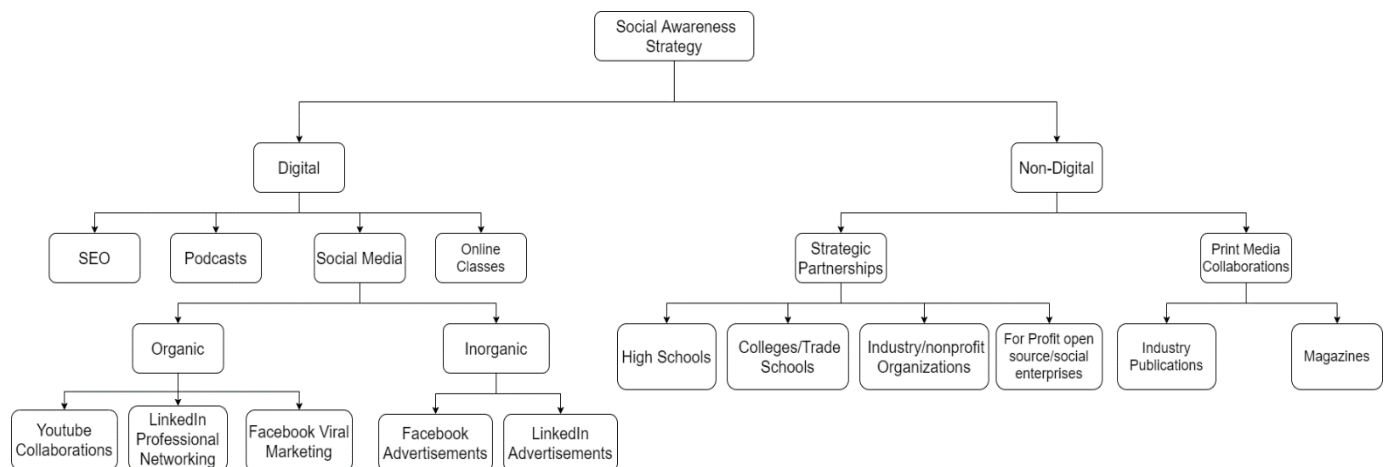
The phased implementation plan has been ordered taking into 3 fundamental parameters: (1) The relative ease of implementation; (2) the expected ROI; (3) the costs involved in achieving a 100% successful implementation.

Phase 2:
Generate Interest

(3 Months)

ROI: 70 Participants

COST: $9,154, 507 hours

Phase 3: Generate Solid Conversions

(3 Months)

ROI: 26 Participants

COST: 520 Hours

Phase 1:
Brand Awareness

(6 Months)

ROI: 102 Participants

COST: $1566, 780 Hours

TOTAL RETURN: 198 Participants
TOTAL COSTS: $10,720 1,781 Hours

An implementation plan is provided in conjunction with this report. Assuming a 100% successful implementation, we expect Open Source to gain 198 STEAM Camp participants within the 1 year.

Note: The Inorganic Youtube branch, which focuses on influencer promotions, has been moved to the auxiliary recommendations. The total return and total costs have been updated to reflect this change.

Print Media

Overview: Magazine ads are very effective when it comes to reaching a specific audience that is interested in your content, but the extent to which it is effective depends on the amount of money you're willing to put in.

What we should know first:
- "The effectiveness of magazine advertising depends on your advertising and promotion objectives, as well as the budget you have for advertising." ([link](#))
    - o Considering that OSE wants to put a minimal amount for maximum reach, we can look at small-scale advertising that targets only a few magazines or print media

Statistics on Print Media
- "56 percent of consumers find print marketing to be the most trustworthy form of marketing." ([link](#))
- "80 percent of traditional mail is opened whereas 80 percent of emails are disregarded."
    - o This makes sense because magazines are usually subscription-based, and people are more willing to look at content that they've purchased
- Print media has a shelf-life that can increase the life of an ad
- Magazine advertising effectiveness in 2017 and 2018 was around 50% for "noted" and 60% for "action taken"
    - o Examples of actions are: considering purchase, recommending the product, and clipping or saving the ad. ([statista](#))
    - o The infographic should also suggest that ad placement by quarter of the magazine should not matter too much
- eMarketer states that Magazine Ad Spending per reader has gone down over the years:
    - o [link](#)
- Digital media dominates the ad spending:
    - o [link](#)
- The average annual expenditure on magazines in the U.S in 2018 was $17.51
    - o [link](#)
- Consumer magazine circulation numbers
    - o [link](#)

Magazines or Newspapers?
- The client mentioned his interest in magazines, and we agree with this form of print media over newspapers because of its ability to add nice visual elements to the ad (such

as color, images, dynamic text, glossy finish, etc.) that a traditional newspaper doesn't provide
- Although people spend more money on newspapers (seen in the infographic above), we also think that since going to a STEAM camp or investing time into OSE requires high engagement, magazines provide that opportunity for engagement
    o We are not considering doing both since costs would be enormous

Notable and Relevant Magazines
- Make Magazine: an open source hardware magazine ([link](#))
    o Printed and digital versions with 70 issues to date
    o Features DIY and DIWO (do it with others) articles and videos
        ▪ We see that OSE has been featured in several stories back in 2011 and 2012
    o Main page features many posts including a "Skills Builder" section mainly for building tutorials
    o Audience is said to be over 50,000
    o A full-page ad will cost just shy of $3,000, but this was posted in 2005 ([link](#))
    o The ads would be next to the stories on the digital version
    o Cutting-edge and modern digital interface with many interesting stories and news relevant to OSE's work
- Popular Mechanics
    o Well-known magazine that features content related to automotive, DIY, electronics, etc.
        ▪ About a million print copies were in circulation in 2019
    o Ads can either be digital or print, and range in size from 1 inch to a full page
        ▪ Contact information for pricing is given, but no direct costs listed ([link](#))
        ▪ "Your sales will grow."
- Successful Farming
    o Stories on all things related to farming including tools, crops, management
    o Ad specs ([link](#))
- Other magazines:
    o Elektor ([ad price info](#))
    o HackSpace (but no ads)
    o Electronic Design ([ad pricing contact info](#))
    o EE Times ([Media Guide Request](#))

Magazine Contact List:

For Electronics:
- Make Magazine: https://make.co/contact/
    o General Feedback: feedback@make.co
    o Customer Service: community@make.co
- Popular Mechanics: http://www.popularmechanicsmediakit.com/r5/home.asp

- o Brad Gettelfinger
    - ▪ 212-649-4204
    - ▪ bgettelfinger@hearst.com
- o Jack Essig
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        - ▪ M +49 (170) 5505396
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    - o Charlie Milligan
        - ▪ Advertising Manager
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    - o Brand Director, e/Design
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            - ● stephanie.campana@penton.com
        - ▪ For Europe:
            - ● Mark Durham
            - ● mark.durham@penton.com
- ASPENCORE: https://aspencore.com/contact-us/
    - o No direct contact listed on the page, but you can reach out to:
        - ▪ Jeffrey Bausch

- - Director of Content Strategy
    - https://www.linkedin.com/in/jeffreybausch/
- Everyday Practical Electronics: https://www.epemag3.com/contact-us.html
  - Advertising enquiries
    - stewart.kearn@wimborne.co.uk
- Electronics World: https://www.electronicsworld.co.uk/contact/
  - Scott Russell
    - Advertisement Manager
    - 01622 699117
    - srussell@datateam.co.uk
- IEEE Spectrum: https://advertise.ieee.org/contact/
  - No direct contact listed
- Electronics For You: https://www.electronicsforu.com/advertise
  - Head Office
    - D-87/1 Okhla
    - Industrial Area Phase I
    - New Delhi 110020
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    - Fax: 011-26817563
    - Email: info@efy.in
- Silicon Chip: http://www.siliconchip.com.au/Help/Advertising
  - Editorial and Advertising Office
    - Within Australia: (02) 9939 3295
    - International: +61 2 9939 3295
    - ads@siliconchip.com.au
    - http://www.siliconchip.com.au/Help/Contact
- Electronics Weekly: https://www.electronicsweekly.com/advertise/
  - Advertising Terms and Conditions:
    https://www.electronicsweekly.com/advertising-terms-conditions/
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    - 2279 Eagle Glen Pkwy #122-481
    - Corona, CA 92883
    - Phone: 951-371-8497
    - Fax: 951-371-3052
    - Editorial Email: editor@NutsVolts.com
    - Advertising Email: display@NutsVolts.com
- New Electronics: https://www.newelectronics.co.uk/electronics-magazine/advertising/
  - James Creber
    - Sales Manager
    - james.creber@markallengroup.com

- Phone: 07983 989684
- SERVO: https://www.servomagazine.com/advertise
  o Advertising Media Kit: https://www.servomagazine.com/uploads/main/SERVO_Magazine_2018_Media_Kit.pdf
    ▪ Email: display@nutsvolts.com
    ▪ Email: display@servomagazine.com

For Farm Tools:
- Farm Show: https://www.farmshow.com/contactus.php
  o For General Info & Questions:
    ▪ info@farmshow.com
  o Scott Geyer, Publisher
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  o Mark Newhall, Editor
    ▪ mark@farmshow.com
  o Bill Gergen, Associate Editor
    ▪ bill@farmshow.com
  o Circulation Department
    ▪ circulation@farmshow.com
- Farm Equipment: https://www.farm-equipment.com/advertise
  o No direct contact listed
- Farm Equipment Magazine: https://www.americafem.com/advertise-mediakit/
  o Email: newsroom@americafem.com
- Farmers Hot Line: https://www.farmershotline.com/advertising
  o Phone: 1-800-673-4763
  o Email: info@farmershotline.com
- Mother Earth News: http://www.ogdenpubs.com/uploadedfiles/advertising/mother_earth_news_media_kit.pdf
  o Contains Audience Stats, Ad Specs, etc.
    ▪ Phone: 800.678.5779
    ▪ Email: adinfo@ogdenpubs.com
    ▪ Website: www.MotherEarthNews.com

Large Scale Magazines:
- WIRED: https://www.wired.com/wired-advertising/
  o Douglas Grinspan
    ▪ Head of Revenue: Business, Technology & Finance
  o Piper Goodspeed
    ▪ Head of Brand Revenue Strategy
    ▪ adinquiries@condenast.com

3D Printer Magazines:
- All3DP: https://advertise.all3dp.com/

- o   Email: advertise@all3dp.com
- TCT: https://www.tctmagazine.com/contact-us
  - o   Daniel O'Connor, Head of Content
    - ▪ Email: daniel.oconnor@rapidnews.com
    - ▪ Tel: +44 1244 952398
    - ▪ Skype: danieloconnorrapidnews | Twitter: @theTCTMagazine | @docefc
  - o   Nicky Martin, Advertising Manager
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    - ▪ Tel: +44 1244 952385
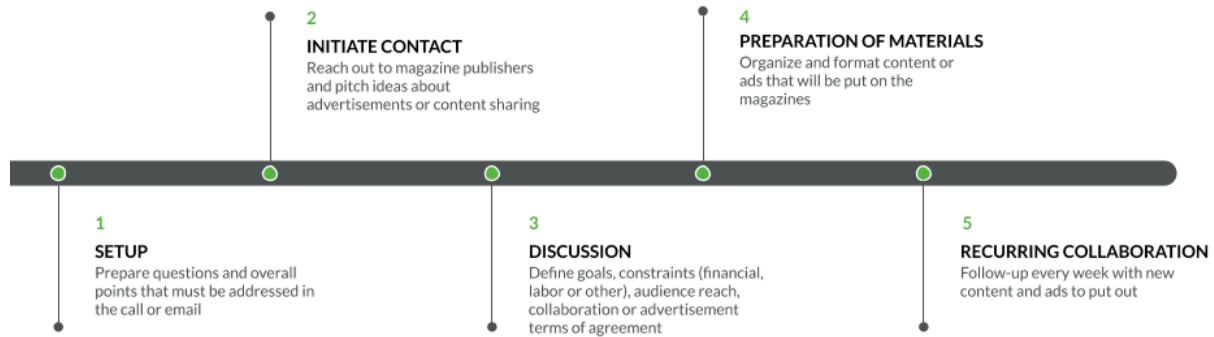   - ▪ Skype: Christine.Joinson | Twitter: @theTCTMagazine

More:

- Waste Advantage: https://wasteadvantagemag.com/advertising/
- Open Source: https://opensource.com/contact
- Esri: https://www.esri.com/en-us/contact#c=us&t=0
- Open Engineering: https://www.open-engineering.com/index.php/about-us/
- Eco Tech Daily: https://ecotechdaily.net/about/
- Dezeen: https://www.dezeen.com/contact/
- The Fabricator: https://www.thefabricator.com/contact-us
- IFTF: http://www.iftf.org/iftf-you/contact-us/
- Civil Engineering Magazine - ASCE: https://www.asce.org/ce-magazine/contact/
- Civil + Structural Engineer: https://csengineermag.com/contact-us/
- Permaculture: https://www.permaculture.co.uk/contact
- Core 77: https://www.core77.com/contact?utm_source=navigation
- Low-tech Magazine: https://www.lowtechmagazine.com/about.html

Implementation:

MAGAZINE: IMPLEMENTATION

This branch is for Phase 1, which lasts 6 months.

2
INITIATE CONTACT
Reach out to magazine publishers and pitch ideas about advertisements or content sharing

4
PREPARATION OF MATERIALS
Organize and format content or ads that will be put on the magazines

1
SETUP
Prepare questions and overall points that must be addressed in the call or email

3
DISCUSSION
Define goals, constraints (financial, labor or other), audience reach, collaboration or advertisement terms of agreement

5
RECURRING COLLABORATION
Follow-up every week with new content and ads to put out

Return on Implementation:

MAGAZINE: ROI

| ~30 minutes to familiarize with a magazine and reach the right person | + | It takes ~1 hour to discuss initial thoughts and ideas with a magazine publisher or send a specialized email | + | An additional 1 hour is needed to go over ad specs, content to share, and terms of agreement | + | Formatting the right content/ad takes an additional 1 hour | = | **4 hours** |

| 224.6 million magazine readers/7,218 magazines in the U.S. in 2018 (Statista) | × | ~ 14.8% of magazines are considered academic (IBISWorld) | × | 5% industry conversion rate for technology, equipment, or hardware (MarketSherpa) | × | For 1 participant, 0.4% of total magazines will need to have been reached out to (~29) | = | **1 participant** |

ROI: 4 HOURS/PARTICIPANT

Goal is to partner with 1-2 magazines per week, for all of Phase 1, so 4-8 hours/week is suggested

Sources: Statista, IBISWorld, MarketSherpa

Search Engine Optimization (SEO)

What is it?
- A process of increasing a website or web page's visibility in a search engine (e.g. Google, Bing, Yahoo!)

Why is it beneficial?
- Provides strategies to increase the quality and quantity of website traffic
- Implication: more exposure → more potential participants and instructors

Which search engine is best?
- This is an obvious answer. The most popular engine is Google, which hosts 90% of all internet searches and yields over 3 billion searches a day.

How many people have searched up "Open Source Ecology" in the past year?
- Google Trends provides some general information about the traffic (here)
- We see an average of 21.5 web searches per week

o However, this is an average, and when looking at the chart, there are many weeks that have 0 web searches

What exactly shows up on a web page when you make a search?
Upon searching up an entity on Google, several things show up:
- Paid advertisement(s) underlined with an "Ad" indicator in green
  - o Although these are at the top or near the top of the page, they fall under paid advertisement, or more specifically, pay-per-click advertising (PPC)
    - ▪ "PPC is an online advertising model in which advertisers pay each time a user clicks on one of their online ads. There are different types of PPC ads, but one of the most common types is the paid search ad."
  - o This is considered inorganic SEO
- Knowledge graph
  - o Shows a box with information that can be gathered from a variety of sources that may be further down the page
- "People also ask" box
  - o Similar to the knowledge graph, these are boxed questions on the page with questions that the user may that have related to their search
- Videos (optional)
  - o These may appear on the page depending on the search
- Top ranked results
  - o These are the first organic (unpaid) slots that appear on a webpage after a search has been entered. They usually appear after all of the above-mentioned items, but this depends on the search words
  - o The first 3-5 organic results account for approximately 70% of all clicks
    - ▪ Implication: ranking matters!
    - ▪ Sources: [Zero Limit Web](#), [WPBeginner](#)
- Miscellaneous items that vary depending on the search
  - o For example: recipes, bottom ads, local map

What appears when you type in "Open Source Ecology"? How about "open source"?
- When "Open Source Ecology" is entered, we have our ideal ranking
  - o All the first organic results are for OSE
- However, typing in "Open Source Ecology" is a niche search
  - o What if you just type "open source"? ([see here](#))
    - ▪ All the flexibility in the results is limited to "software"
    - ▪ Note: the answer box where it asks "What do you mean by open source?"
      - ● This is a potential landing spot for OSE to have their own answer to the question
  - o What if you type in "open"? ([see here](#))
    - ▪ The results are too diverse, and the competition here is high
  - o What if you type in "ecology?" ([see here](#))
    - ▪ These results are more definition-based, so there is potential
    - ▪ However, OSE would have to mention "ecology" a lot

Where do SEOs come into the picture of recruiting participants and instructors?
- First, we should define the process of acquiring our target audience
- The levels in having a successful transaction, in this case, recruiting a participant/instructor named 'X':
    - Provide exposure to X, have 'X' become aware of OSE, provide X a meaning of OSE to remember, grasp X's interest, convert X into a believer of OSE's principles, and lastly, have X be willing to go to STEAM camps
- We should also mention the stages of perception in marketing, which are:
    - Sensation
    - Attention
    - Interpretation
    - Retention ([source](#))
- SEOs will essentially be the starting block in this recruiting process, whether it be in exposure or sensation, but it can also be a part of later stages

What types of SEO are there? ([source](#))
- On-page: relates to the content on your website
    - The keywords, images, meta-tags (snippet of code that describes a page's content)
- Technical: relates to non-content elements of your website
    - The backend structure of the website (readability of code and user experience)
- Off-page: strengthens the influence and relationship your website has with other websites
    - Increasing reputation and authority (high-quality backlinks)

How are rankings decided by Google's algorithms?
- Google has not disclosed all the ways in which they do this, but the famously known PageRank was one of their first algorithms
    - PageRank: a link analysis algorithm that places a numerical weight on hyperlinks in a webpage, and outputs a probability distribution that represents the likelihood that a person clicks on a specific link on a page
- There are numerous other factors that contribute to ranking:
    - Some of the more basic ones:
        - Keywords in the search also appear on your webpage
        - A user's geographic relevance to the geographic elements mentioned on the webpage
        - Recency of the webpage
    - For a better understanding of how complex rankings can become, here is a list of 200 factors! ([source](#))

What are the results when searching for keywords related to "STEAM camps"?

- Of course, it depends on the keywords
- We will provide screenshots (.png) of search result pages for these phrases:
    - 3d printer courses
    - Best summer camps for entrepreneurs
    - CAD bootcamp
    - Engineering camps summer
    - Entrepreneurship
    - Industrial engineering
    - Manufacturing opportunities
    - Mechanical engineering workshop
    - Online courses about building machines
    - Startup camp
    - Steam camps
    - Steam workshops
    - Stem summer camps
    - Summer camps for engineers
    - Tech camps
    - Technical bootcamp
- Takeaways from the review of these searches:
    - Just from looking at the results, it is hard to decipher if the search words are actually low competition
        - Even if little-known sites appear, they may be implementing the proper SEO strategies and are now the competitor for traffic
    - In-depth analysis of what words to use needs to be done
        - How so?
            - This [video](#) provides insight on the sites to use, mainly:
                - SEMrush
                    - Most popular pages of competitors
                - Ahrefs
                    - Shows how many links each page has
                - Google Search Console
                    - Tool to track rankings, keywords
                - Google Trends
                    - Tool to track number of searches for words
    - Incorporating all these terms is infeasible because there are only so many keywords that OSE can capitalize on to increase traffic
        - Going for too many words leads to a loss of space in meta tags for the actual important keywords
        - Cluttering of keywords won't make sense in a title/description tag
    - Utilizing any keyword with "low competition, high traffic" doesn't work well anymore, since Google matches searches to "intents" and not just "words"
        - The search algorithm also has many factors not based on words input

Basic Meta Tag Strategies

- First, we should mention four general types of meta tags (other forms exist)
  - o Meta keywords attribute: a series of keywords you deem relevant to the page in question
  - o Meta title tag: the text you'll see at the top of your browser; search engines view this text as the "title" of your page
  - o Meta description attribute: a brief description of the page
  - o Meta robots attribute: an indication to search engine crawlers (robots or "bots") as to what they should do with the page ([source](#))
- Each type has a different value:
  - o Meta keywords attribute
    - ▪ Involves adding a bunch of unrelated keywords to the website code
    - ▪ Google removed this from their ranking algorithm
  - o Meta title tag
    - ▪ Most important meta tag that will affect rankings
    - ▪ Hard to incorporate all STEAM camp related terminology into the title since there is an effective maximum at 60 characters ([link](#))
  - o Meta description attribute
    - ▪ Lies below the title tag as a descriptor
    - ▪ Not useful for ranking, but important in attracting users on result pages to click on the website; advertisement words
    - ▪ If it answers a user's question or addresses a related interest, it will be more effective
  - o Meta robots attribute
    - ▪ Guideline statements for search engines
    - ▪ Tells engines whether it should index/noindex or follow/nofollow links
- Recap:
  - o Target keywords should definitely be in your:
    - ▪ Title tag
    - ▪ Description attribute
    - ▪ Page content (not mentioned previously)

Adding a Sitemap to the Website (if it does not exist yet)
- Can either be in XML or HTML form
- XML sitemaps cater to search engine spiders so that information on web pages, such as URLs and accompanying data about page updates, modifications, date, priority, etc. can be scoured and allow for indexation (hopefully)
  - o Here is a video about adding an XML sitemap: [link](#)
- HTML sitemaps provide links that have already been placed in the header or footer of a page, and when done well, will include all the links for the website and ensure easy navigation (crawlability)

Extra Tips:
- Having a keyword be the first word in a domain helps increase traffic slightly
- Have a keyword in the subdomain

- Keyword as your second title tag (H1 tag)
- Increase content length and go in-depth with every topic (preferred by algorithm)
- Have a table of contents on the website for sitelinks
- Ensure high page loading speed (use PageSpeed Insights)
- Avoid duplicate content on the website
- Have high-quality links that lead to authority sites (builds trust signal with algorithm), but not too many
- Include multimedia use to increase content quality score
- More tips to come…
- Very Helpful Guideline: SEMrush and Ahrefs

ROI Setup (Missing Actual Statistics)
- There is a lot that needs to be addressed before finalizing the ROI:
  - What is the return/gain variable?
    - Number of people exposed
    - Number of people engaged
    - **Number of potential participants**
    - Number of clicks made to the website
    - Number of spots in ranking improvement
  - What is the cost?
    - Paying for an expert SEO site to manage strategies
    - Paying for helpful tracking websites (e.g. SEMrush)
    - Time/labor costs
    - Source

- Basic Process:
  - Return:
    - To get to the return, we need to follow a logical step-by-step approach:
      - (1) start off with existing numbers
        - Number of searches for related keywords, how many people click onto the relevant web pages, etc.
      - (2) look at the SEO methods that OSE can implement and find statistics on how much traffic will increase
      - (3) take this new adjusted number as the impressions number
      - (4) derive a clickthrough number if this isn't already congruent with the previous number in step 3
      - (5) find case studies to gauge the conversion rate for viewers of the website and turning them into actual participants of STEAM camp
  - Cost:
    - To get the cost, we focus on a more horizontal-based analysis:
      - (1) get the total cost for tracking websites
        - SEMrush:
          - $99.95/month for the Pro package (cheapest one)

- - - - [Pricing](#)
    - - 1-week free trial exists
  - o Ahrefs
    - - $99/month for the Lite package
    - - [Pricing](#)
    - - 1-week free trial exists
  - o Google Search Console
    - - Free!
    - - [Info](#)
  - o Google Trends
    - - Free!
- (2) time/labor costs
  - o Regardless of the number of tracking websites OSE decides to use, a decent amount of time will be invested
  - o The value of time will be measured by the hour ($/hour)

- Issues:
  - o There is a lot of ambiguity when it comes to obtaining an accurate conversion rate for SEOs, since there is no clear way to tell if website traffic is the reason for a lead (which in this case is participation in a STEAM camp)
  - o The lead for OSE is so distinct that typical "sales" leads statistics are inconsequential, and data related to camp participation and SEO are basically impossible to find
  - o As a result, the ROI cannot be calculated at this moment, but in the future
    - - It is a measure of implementing, then getting ROI, and then deciding whether or not to continue with it
    - - These sites provide the same logic that ROI is obtained in the future:
      - [Search Engine Journal](#)
      - [Junto](#)
    - - Just for more information, here are some industry-based conversion rates ([here](#))
  - o What should be done is a progressive, monthly evaluation of traffic and STEAM camp sign-ups after implementing SEO strategies

SEO: ROI

| Gather all relevant keywords (e.g. microfactory, open source electronics, startup camp, steam camp) | → | Sum of avg. monthly searches for these keywords (Source: SearchVolume.io keyword search tool): 570 | → | SERP avg. ranking is (35.75); with SEO strategies the goal is rank 10 (Source: Search Engine Watch) : 2.4% |

| 16-24 hours/1.368 leads (IF ONLY 4 KEYWORDS ARE USED) | ← | Cost: 4-6 hours/week → 16-24 hours/month of labor | ← | Number of organic clicks: 570*0.024 = 13.68, then 10% conversion rate → 13.68*0.1 = 1.368 leads/participant per month |

9 ⊙⊙

Sources: Google, SEMRush, SearchVolume.io, Salary, Search Engine Watch

Implementation Plan:

1. Disclaimer: the implementation process for this branch is based only on the knowledge that we acquired in the past weeks and should not be considered a guarantee on results. Rather, these are simplified, suggestive tips on how to increase traffic for OSE's STEAM camps.

    1. Familiarize with SEO concepts
   a. Rankings
   b. Role of keywords in search results
   c. Backlinks
   d. Types of SEO:
   i. On-page: relates to the content on your website
       1. The keywords, images, meta-tags (snippet of code that describes a page's content)
   ii. Technical: relates to non-content elements of your website
       1. The backend structure of the website (readability of code and user experience)
   iii. Off-page: strengthens the influence and relationship your website has with other websites
       1. Increasing reputation and authority (high-quality backlinks)
    2. Familiarize with the SEO tools that OSE will be using
    3. Make a decision on which tools to use
   a. Recommended SEO tool: SEMrush
       b. Recommended general traffic tool: Google Search Console, Google Trends
    4. Use the 1-week free trial for SEMrush

c.   Use the tool as much as possible to maximize the usefulness of the trial
               d. Decide on whether or not OSE would need more time to use the tool and consider the cheapest premium of approximately $99/Month

e.   If all the SEO strategies are implemented in a weeks time, then a paid plan wont be necessary

Basic:

Google Search Console:
1. Go onto the Google Search Console website ([Google Search Console](#))
2. Input the domain or url of choice into one of the provided boxes
3. A pop-up will show with directions to verify the website to the console, which can be done in several ways:
    1. Copying a TXT record into the DNS configuration of your domain
    2. Upload an HTML file to your website
    3. Add a meta tag to your site's homepage
    4. Connect using Google Analytics account
4. Once verified, OSE can adjust "Users and permissions" in the "Settings" tab to allow more people to access the console
5. The "Overview" tab will show a dashboard with performance, coverage, and enhancement boxes
6. Go to the "Performance" tab on the left-hand side of the page to see more statistics about OSE's website
    1. Add filters to the top (e.g. past 3-months)
    2. Look at the clicks, impressions, clickthrough rate (CTR), and average position of the page
    3. Scroll down to see the top search queries/words that are driving traffic to the site
    4. Go to the "Pages" tab next to "Queries" and find the pages that are directly related to STEAM camps (these are the pages that explain the STEAM camp, allow for registration, etc.)
    5. Click on the desirable page link in the list of pages
    6. Now, after clicking the page link, a filter should be added to the performance analysis (can be seen this at the top after clicking)
    7. Go back to the "Queries" tab to see which words are most searched that lead users to the STEAM camp page
    8. Notice that each query has "clicks", "impressions", and "position"
    9. Click on the impressions column
        1. We want to optimize the pages that have the highest impressions because this is the foundation for building brand awareness for OSE and STEAM camps
        2. Remember: impressions → clicks → conversion
    10. Click on the clicks column
        1. Clicks tell you how attractive the page is upon impression

11. Don't worry about ranking because initially, that is just there as a progress check once the SEO is implemented
7. To check if the webpages have any issues, go back to the Overview tab
    1. Enter the desired url in the top bar
    2. If there are any issues, it will indicate this at the top of the page
    3. Scroll down and click on any issues to retrieve more information
        1. This may require OSE to change the HTML code
8. To see the speed of the webpages, look at the left toolbar and under "Enhancements", click "Speed" (this may not show up on toolbar depending on the webpage)
    1. Click "Open Report" for more details
    2. To increase speed of the webpages, minimize HTTP requests by minimizing space and combining files in the HTML/CSS/etc code
        1. Details on this are not specifically known to us, but here is a resource that you can look into: Speed Up Your Website
9. To see which breadcrumb trail OSE/STEAM camps fall under, go to the "Breadcrumbs" tab under "Enhancements"
    1. Click on "Learn More" for more information
    2. A breadcrumb trail basically shows a hierarchy of categories that your page falls under, such as Books → Science Fiction → Award Winners
10. Key tip: if a page has a lot of impressions but few clicks, then you know that the webpage can be improved upon in terms of the appeal

SEMrush pathway:

2. Go onto the website here: www.semrush.com
3. Enter the domain, url, or keyword that OSE wants information on into the provided search bar at the top of the page
4. In the top left corner, click on the drop-down menu and click "SEO Toolkit"
5. Click on "SEO Dashboard", which provides:
    a) Keywords
    b) Backlinks
    c) Geo distribution
    d) Etc.
6. OSE can connect to Google Analytics by clicking on the gear sign (Settlings) in the top right section of the dashboard
7. To connect Google Search Console, scroll down until the "Performance GSC" box appears
8. Competitive Research
    a) Now go to the "organic research" tab on the left hand toolbar
        i) Click on the competitors tab on the left hand toolbar
            (1) Here, OSE can see which websites are deemed competitors based on the related keyboard searches
    b) Now go to the "Traffics Analytics" tab on the left-hand toolbar
        i) Enter a competitor's domain to gather more information about where their traffic comes from
9. Keyword Research:

a) Now go to "Keyword Gap"
    i) Enter some competitor domain names into the provided boxes at the top
    ii) Look at the table below to see how far the ranking gap is between OSE and the competitor(s)
    iii) Click "Enable Charts" in the box below (should be on the right side) for a visual form
b) You can do the same analysis using "Backlink Gap" to see what links the competitors use
c) Use any of the other tabs under "Keyword Research" for more information
    i) Use the "Organic Traffic Insights" to show the not-provided keywords, which can be very useful to see which keywords should be included but aren't
10. Backlink Research
    a) Under the "Link Building" tab, click on "Backlink Analytics" for analysis of competitors similar to the keyword analytics tab
    b) Then click on the "Backlink Audit"
        i) Click the desired webpage link
        ii) Click "View Report"
        iii) Remove toxic backlinks
    c) Now go to the "Link Building Tool"
        i) Click on the "Prospects" tab to see high value potential backlinkers
        ii) Click on "In Progress", then view the pre-written message that will be sended to the site and send it
11. Rank Tracking
    a) Click on any of the tabs in this section to keep track of SEO improvements
12. To check for errors in the website, go to the "Site Audit" tab, and it provides similar error reports to that of Google Search Console
13. Play around with the site, and in short time it will be very easy to navigate

Changing the Meta Tags (Titles and Descriptions):
1. We looked through the source code for OSE's website and noted that it already has the Yoast SEO plugin, which is a useful tool that allows for easy adjustments to the meta tags of the website
2. Since this is the case, OSE's website is built through WordPress
3. Go onto WordPress and click the Yoast SEO plugin tool in the left-hand toolbar
4. Click the "Titles and Metas" subtab
    a) Click "Homepage" and ensure that the title and meta description are what you want them to be
5. Now click "Tools" under the Yoast SEO plugin in the left-hand toolbar
    a) Click "Bulk editor"
        i) Change titles and descriptions to optimize
6. Alternative Method:
    a) Go directly into the source code for the desired webpage
    b) There should be some lines indicating:
        i) <title>
        ii) <meta name="description" content="insert words here" /> (example)
    c) Change the *"insert words here"* part

Tracking Progress
1. Use the "Performance" tab on Google Search Console
2. Use the various tabs on SEMrush

Review:
1. Preliminary setup
2. Google Search Console
3. SEMrush pathway
4. Using valuable information and making edits to website
5. Tracking progress

Note: the STEAM camp registration page is on *eventzilla.net*, so make sure to include this webpage in the traffic analysis

Helpful Resources:

Videos:
- [How Google Search Works (in 5 minutes)](#)
- [How Search Works](#)
- [Google Search Console Tutorial](#)
- [SEMrush Comprehensive Guide](#)
- [Yoast SEO Plugin - Altering Meta Tags](#)
- [Altering Meta Tags (Not Through Yoast SEO)](#)

Articles:
- [SEO Case Studies](#)
- [How does a search engine work?](#)
- [Appearing in Google Answer Boxes](#)
- [Types of SEO](#)
- [On-Page SEO Guide](#)
- [Crawlability and Indexability of a Website](#)

Notable People Mentioned (among others):
- Cliff Sarcona (eCommerce Traffic Architect, profile [here](#))
- Rand Fishkin (Audience Intelligence Developer, profile [here](#))

Organic Social Media: Facebook

Overview: This branch's goal is to add minimal costs and time onto the Facebook page while still increasing OSE follower's engagement by re-structuring posts to follow the optimal path along the Facebook algorithm.

Analysis: https://www.facebook.com/OpenSourceEcology/
- What's great about the Facebook page!

   👍 Large following: 71,488 people like the OSE page & 72,419 people follow the page

   👍 Direct links leading to website and emails

   👍 Frequent posts related to either OSE or open source topics of discussion

   👍 OSE Workshop Group runs very well and has frequent participation from members
- What can be added to the Facebook Page

   🤲 Increase engagement on STEAM Camp posts by relating STEAM camps to a current social event or trend

   🤲 Post short clips of OSE YouTube videos along with the link to the full video

   🤲 Promote the OSE Workshop Group more on the main page

   🤲 Engage in the comment sections with OSE followers to foster open source related conversations, thinking and debates
- Video Posts have the highest average reach and engagement on Facebook
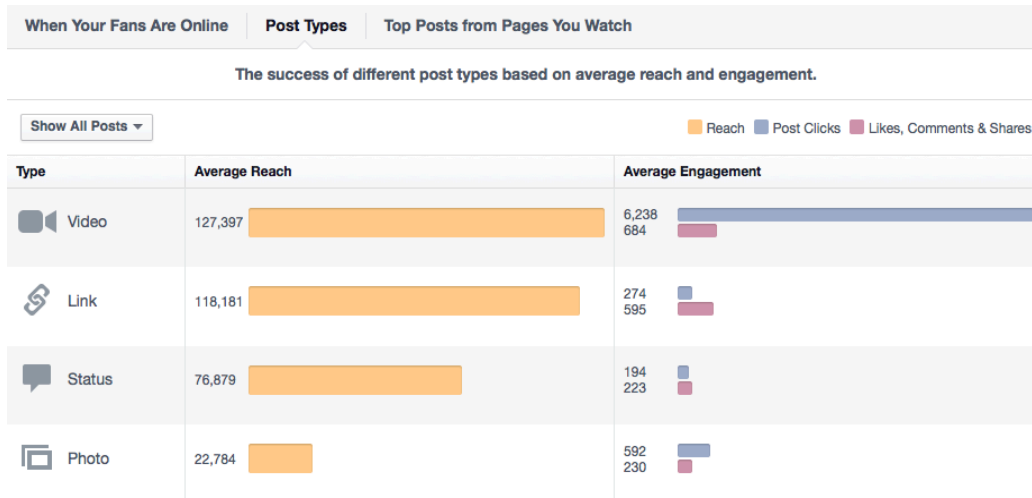
- Video posts ideally should range between 3-5 minutes long (Source: Facebook Analytics)
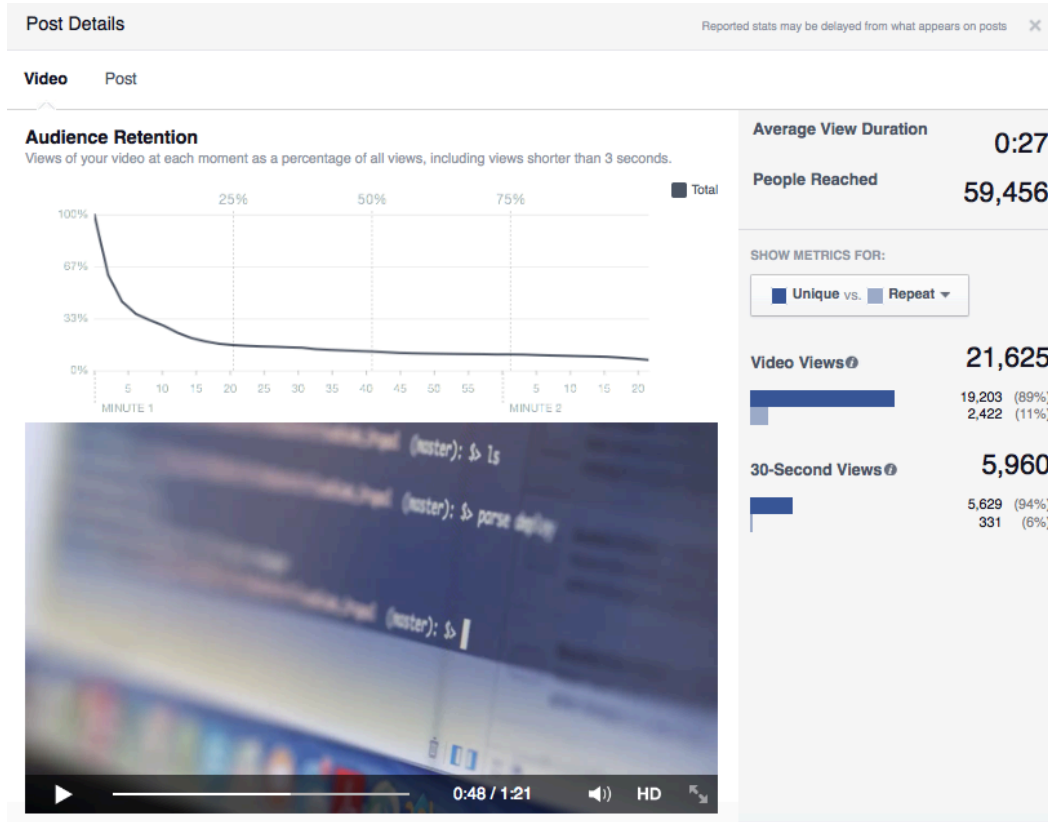
-
  - Facebook offers these metrics on every video that OSE may post
- Posts with highest engagement on OSE Facebook page are about heavily talked about topics. Along with eye-grabbing pictures.
  - OSE can use similar styled posts for STEAM camp promotions
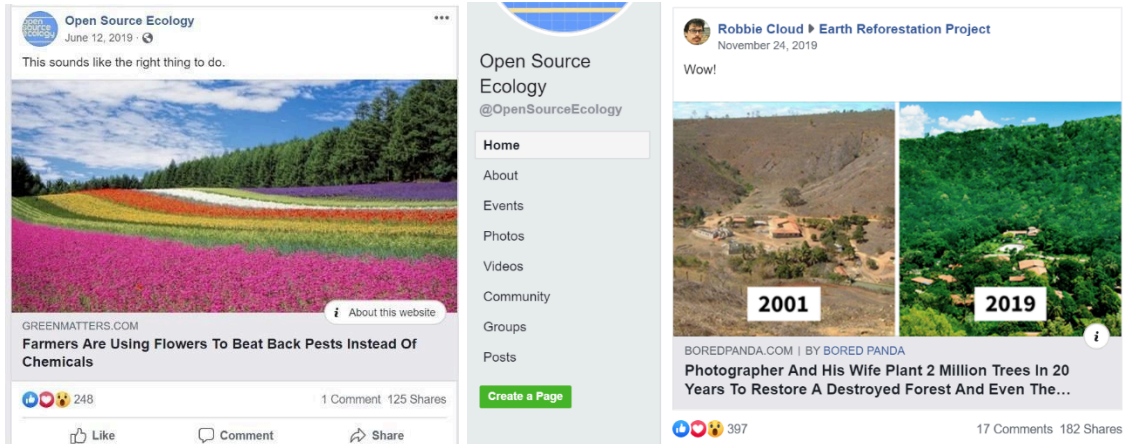
Implementation

- STEAM Camp Promotional Posts: Include 1-2 sentences at the start of promotional posts that grab the attention of the viewer. Sentences should discuss a relevant or commonly talked about topic in society. The following paragraph should explain how STEAM camps can solve this issue
- Video Posts: Post direct videos onto Facebook instead of links. Videos that range between 3-5 minutes long get the highest average engagement on Facebook compared to any other type of post. A short "highlight" clip from an OSE video can be posted along with the link to the full video in the caption
- Promote the OSE workshop group: 71 thousand Facebook users follow OSE's main page but less than 2 thousand are members of the OSE Workshop group. Directing people who participate in the comment sections on the main page over to the workshop group can help foster more conversation and interest. As well as allowing potential participants to see testimonials from other people who have already attended a STEAM Camp.
- Engage with followers: Similar to LinkedIn organic marketing, sparking conversation is a great way for new people to notice the post and engage in the comment section. Encouraging conversation can be done by prompting a question at the end of each post or responding to other comments/debates

Return on Implementation: (Time Commitment)

- Time commitment (Additional hours to what OSE already invests into Facebook)
  - o Added time for relating STEAM Camp posts to social topics: ~10 minutes x 2 times a week = 20 minutes
  - o Added time for cropping OSE videos and uploading directly to YouTube: ~25 minutes x 2 times a week = 50 minutes
  - o Increased activity to engage with followers and promote the group page: ~25 minutes x 2 times a week = 50 minutes
  - o Total time commitment: 2 hours a week
- Potential participants
  - o Step 1: 71,000 people follow the main facebook page and the average follower to view ration on Facebook is 3.2%:

- 71,000 * .032 = 2272 views x 2 STEAM Camp posts a week = 4544 views a week
  - o Step 2: 2% of 4544 followers reached will click on the STEAM camp link or video promotion(Average Facebook click rate) = 4544 * .02 = ~90 clicks/week
  - o Step 3: assume a low 1% of 90 clicks will sign up for the STEAM camps: 90 * .01 = .9 participants/week
- ROI
  - o Weekly ROI = .9 participants/2 hours/week
  - o Time to acquire 1 participant: 1 participant/2.22 hours

Time Commitment:

Added time relating STEAM Camp promotional posts to social topics: ~10 minutes 2 times/week	**+** Added time clipping OSE YouTube videos and uploading to Facebook directly: ~25 minutes * 2 times/week	**➡** Increase engagement in comment sections & promotions for OSE Workshops group: ~25 minutes * 2 times/week	

.9 Participants/2 hours/week = 1 participant/2.22 hours

Potential Participants:

71,000 people like the page and ~3.2% will see a post = 2272 engagement reach * 2 STEAM Camp promotions/week	**➡** 2% of the 4544 followers reached/week will click the STEAM Camp promotion	**➡** Assume a low 1% of 90 clicks will sign up for the STEAM Camps: .9 participants/week

Risk Analysis

	Risk	Mitigation Plan
1	Backlash of using social trends as promotional collateral for STEAM Camps	1. Stay active in comment sections(especially on STEAM Camp promotions) in order to further elaborate on the first explanation 2. Present strong initial explanations of how STEAM Camps can solve the issues
2	Added time commitment is not worth the low conversion rates of direct STEAM Camp sign ups	1. Start with a slight increase in recommended strategies to test if engagement increases on the Analytics tab 2. Focus your time on follower engagement on the group page and in comment sections to increase OSE conversations

Organic Social Media: LinkedIn

Overview: Set up and run an active Open Source Ecology LinkedIn page with daily posts to attract engagement naturally.

Analysis: https://www.linkedin.com/company/open-source-ecology/
- What's great about OSE LinkedIn!

    👍1,223 followers

    👍There have been 2 posts. One about recruiting for STEAM Camps and one about recruiting a videographer. Both posts are good promotional posts but they've occurred over the span of a year

    👍Good "Call to action" button on the top left that leads you to OSE Website

    👍About and People tab are well set up. The overview encompasses OSE mission very well. The People tab shows some people who work in the company but not all of them.
- What can be added

    🤲Higher frequency of posts-Minimum post frequency for organic marketing on LinkedIn should be 1 post a day

    🤲Follow the 4-1-1 rule when posting on Facebook. This will decrease time for creating original content but maintain frequency posting

    🤲Stay active on the page by engaging with followers in the comments and commenting on open source related posts
- Why LinkedIn Organic marketing
    - LinkedIn is the best social media platform for organic marketing
        - According to EMarketer, LinkedIn is the top social media for organic marketing. 52% of LinkedIn marketers polled worldwide had plans in 2019 to do more organic marketing compared to the previous year.
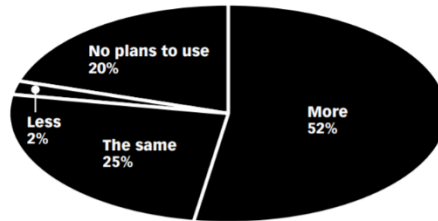
o   LinkedIn is the top social media platform that millennial professionals trust for industry related knowledge

Leading Social Media Platforms B2B Marketers in North America Use for Organic vs. Paid Content Marketing, July 2019
% of respondents

LinkedIn
95% (Organic)
76% (Paid)

Twitter
86% (Organic)
29% (Paid)

Facebook
83% (Organic)
66% (Paid)

YouTube
53% (Organic)
11% (Paid)

Instagram
46% (Organic)
17% (Paid)
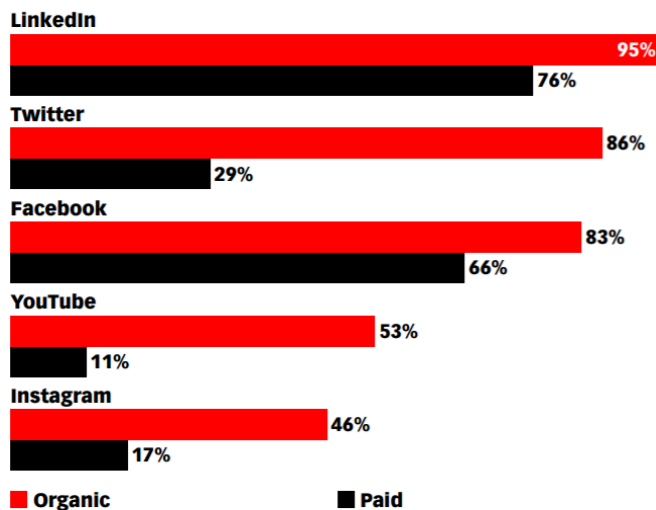
■ Organic   ■ Paid

Note: among those who used organic or paid social media to distribute content in the past 12 months
Source: Content Marketing Institute (CMI) and MarketingProfs, "B2B Content Marketing 2020: Benchmarks, Budgets, and Trends - North America," Oct 22, 2019
250430   www.**eMarketer**.com

Implementation

- Step 1: Setting up a full LinkedIn business profile
  - o Step 1a: Have a full compelling summary
    - ▪ Since the summary is on the About tab, possibly include a tagline or short explanation of OSE in the header photo
  - o Step 1b: Have as many employees connect with the page and identify their roles within OSE
    - ▪ More connections and networks tied to your page will increase engagements and clicks
  - o Step 1c: Add or refine specialties in the About page
    - ▪ Current specialties are listed as fabrication, building, and permaculture
  - o Step 1d: Add page hashtags. These will help increase people finding your page based on related content or searches.
- Step 2: Stay active on the page
  - o Consistently post industry-related content on the page
    - ▪ Article by LinkedIn on how to grow a brand's organic following:https://business.linkedin.com/marketing-solutions/blog/best-practices--social-media-marketing0/2019/how-to-grow-your-organic-following-on-linkedin-
    - ▪ Step 2a: Set engagement targets for posts
      - ● You can access your current engagement using the analytics tab once logged onto the company page

- Step 2b: Maintain a steady posting cadence
  - LinkedIn recommends 1 post per day
    - Note: These do not have to be original OSE written posts. Sharing posts or articles by other pages takes less time and fosters a strong LinkedIn community
  - LinkedIn Recommends a 4-1-1 rule for content sharing
    - For every one self-serving post, share one other relevant post (relevant to the self-serving post) and most importantly share four pieces of relevant content related to others
  - Types of posts: 1 single idea/topic per post
    - Attention-grabbing content
      - Article posts sometimes can be easily scrolled past
      - LinkedIn SlideShare is a great tool that companies use. Forbes article talks about the physical screen space the feature takes up compared to other posts. Hinting that this is why SlideShare tends to get slightly more engagement than regular posts
      - Video posts can be great marketing tools. EMarketer recommends short videos that can quickly teach a viewer about a concept or story. 30 seconds - 1 minute is optimal
    - Reshare related posts
      - Most successful business pages on LinkedIn don't promote themselves but promote their industry and focus more. This can be very beneficial for OSE as an open-source organization
    - Employee or participant stories
      - OSE should consider asking employees and participants to write STEAM camp reviews and stories on their LinkedIn
    - Company/STEAM Camp updates
  - Step 3: Engage with followers
    - Step 3a. A great way to encourage follower engagement is to ask a related question at the end of the post. This will encourage viewers to comment and share their personal stories.
      - The manager who runs the LinkedIn account should engage with these comments and start a conversation
    - Step 3b. Include a call to action link or button (similar to the one at the top of OSE page) on posts. Does not need to always link to another off-site page, but could be beneficial on "self-serving" posts
  - Step 4:Track engagement
    - Use the analytics page to track follower engagement on the posts and the page
- Simple LinkedIn walk through: https://www.youtube.com/watch?v=ORo2jBV8YWc

- o This entire YouTube account is dedicated to giving organic marketing strategies on LinkedIn

Return on Implementation: (Time Commitment)
- ● Time Commitment
    - o Step 1: Update full OSE LinkedIn Profile ~1-2 hours initially (one time commitment)
    - o Step 2: Prepare a post daily: 10-30 minutes (daily commitment)
    - o Step 3: Engage with LinkedIn community: ~20 minutes (daily commitment)
    - o Step 4: Track follower engagements: ~10 minutes (daily commitment
    - o Total time commitment: 1 hour/day or 7 hours a week
- ● Potential participants
    - o 1,234 current OSE LinkedIn followers
    - o Step 1: 2% of LinkedIn followers usually will engage in a post: 1,234 *.02 = ~25 engagements
    - o Step 2: Assume a low 0.5% of engagements sign up (this is changed from the presentation deck. Lowered the percentage to be on a more conservative side): 25 engagements * .005 = 0.125
    - o Total potential participants: .125 participants/day or .875 participants/week
- ● ROI
    - o Daily estimation: .125 participants/1 hour of activity
    - o Weekly estimation: .875 participants/7 hours of activity
    - o Time to acquire 1 participant: 1 participant/8 hours

Time Commitment:

Update full OSE LinkedIn Profile: ~1-2 hours initially + Prepare a post daily: ~10-30 minutes/day → Engage with LinkedIn community: ~20 minutes/day → Track follower engagement: ~10 minutes/day

Potential Participants:

1,234 current LinkedIn followers → Assume 2% of followers will engage in a post 1,234 *.02 ~25 engagements → Assume 1% of engagements sign up: 25 engagements * .01 = .25 sign ups/day

ROI: .25 participants/1 hour/day = 1 participant/4 hours

Risk Analysis

	Risk		Mitigation Plan
1	Difficult to track how many sign ups OSE gets directly from LinkedIn Marketing		1. Poll STEAM Camp participants to see how many follow or have seen OSE's LinkedIn page 2. Cross-platform promotions of OSE accounts (ex: promote OSE LinkedIn on Facebook and OSE Facebook on LinkedIn)
2	Added time commitment is not worth the low conversion rates of direct STEAM Camp sign ups		1. Use LinkedIn platform as marketing collateral to promote OSE resources that lead to higher conversion rates 2. Focus more on reposting from secondary organizations that still facilitate industry related conversations

Organic Social Media: YouTube

Overview: This branch includes organic marketing through Youtube. This will be done by establishing the OSE Youtube channel and doing collaboration videos with other content creators whose content and demographic matches that of OSE. The underlying logic is that Youtube collaborations will help spread awareness among OSE partner's audience/subscribers of OSE and its STEAM Camps, which will ultimately help bring in more participants into the STEAM Camps.

Analysis/Recommendation

OSE needs to first establish its Youtube channel and have a good history of posting quality content. This can be evaluated by the ratio of views/total subscribers per video. For example, if a Youtube channel has 1,000 subscribers and the average views per video is about 100 views, then this ratio would be 10%. We recommend that this ratio should be at least 10%. Since OSE's Youtube channel has about 11,000 subscribers, each video should be getting around 1,100 views.

Implementation
1. Build Youtube Channel: This would involve fostering a community around OSE on Youtube by posting content friendly to the general public (i.e. tutorial videos, vlogs, discussion/interviews, news on open source development). OSE would also need to post these videos at a consistent rate. We recommend posting one 15 to 20 minute video every week, using OSE's current network's word-of-mouth to bring in larger audiences, and posting short 5-minute clips of the video into social media.
2. Research other Youtube channels for potential collaborations: OSE will need to look for Youtube channels whose content and audience matches that of OSE. When researching other Youtube channels to collaborate with, we recommend taking into consideration the channel's content, the channel's audience, the channel's size (subscriber count), and history of collaboration. To help with researching, OSE could ask members of its communities about what Youtube channels they watch.
3. Contact Creator: Introduce OSE and be upfront and transparent about OSE's goals. When first contacting the creator, explain how OSE's and the creator's audience are similar and how his/her content can work well in a collaboration video with OSE.
4. Work Out Logistics: Determine how many videos will be made, what are each side's responsibilities, and how the collaboration will pan out.

Return on Implementation:

Time Commitment:

Take about 3-4 initial hours to rebrand the channel. Spend about 4 hours a week on creating content	Assume researching and finding 1 ideal channel takes ~30 minutes. x 3 channels/week =90 minutes	Assume ~15 mins to locate host's email & send the email (x 3/week). =105 minutes/week	Collaborate with another creator 2x a month. The ideas for collaboration will change time commitment. High estimate: 6 hours
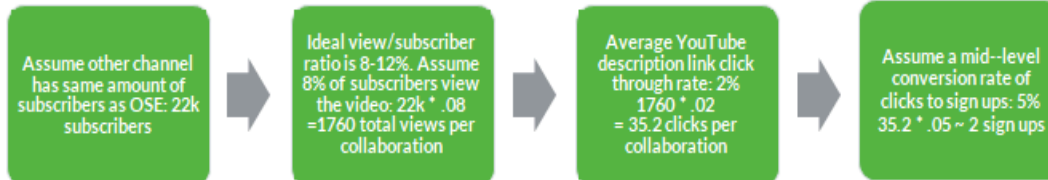
ROI:
2 participants/collaboration
=
4 participants/40 hours
=
1 participant/10 hours

Potential Participants:

Assume other channel has same amount of subscribers as OSE: 22k subscribers	Ideal view/subscriber ratio is 8-12%. Assume 8% of subscribers view the video: 22k * .08 =1760 total views per collaboration	Average YouTube description link click through rate: 2% 1760 * .02 = 35.2 clicks per collaboration	Assume a mid--level conversion rate of clicks to sign ups: 5% 35.2 * .05 ~ 2 sign ups

Risk Analysis

	Risk	Mitigation Plan
1	Difficult to efficiently collaborate with other creators	1. Schedule video calls with interested creators to plan and develop ideas for the collaboration 2. Plan simple videos if it there isn't a clear pathway to go with the video (Ex: Virtual interviews, tutorial videos, coffee chats)
2	Videos do not do well on either creator's channels	1. Continue to promote the YouTube video on all social medias (Facebook video share, LinkedIn video share) 2. Use end screens on new videos to direct viewers to old videos that OSE has filmed 3. Add the video to relevant playlists for viewers to find

Podcast Guest Appearances

Overview: Proactively target and reach out to podcast hosts to promote OSE as a potential guest to speak about open source topics and OSE.

Analysis:

- Example podcasts to reach out to:
  - [How I Built This with Guy Raz](#)
    - Email: guyrazteam@unitedtalent.com
      - Found on Guy Raz personal website
  - [StartUp](#)
    - Email: startup@gimletmedia.com
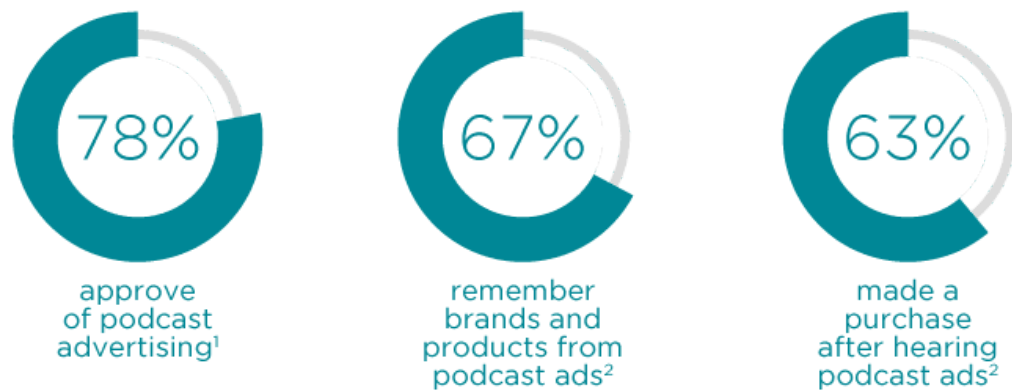   - Found by searching "StartUp Podcast Email"
  - [This Week in StartUps](#)
    - 1070 episodes
    - Guest Speaker application form at bottom of page: https://thisweekinstartups.com/about/
      - Found by searching their main website
  - [Soft Skills Engineering](#)
    - 200+ episodes
    - Twitter handle: https://twitter.com/softskillseng?lang=en
      - Found through their website. Email is the optimal medium to reach out to hosts but if an email address is difficult to find then a social media message works well!
- Podcast sites to look through to find podcasts with content that match OSE's mission and topics of discussion
  - Apple Podcasts
  - Google Podcasts
  - Spotify
  - TuneIn Radio
  - RadioPublic
  - Pocket Casts
- Why target podcasts for speaking engagements?
  - Data collected by a Nielson study on how well podcast sponsors or frequent guest are remembered by the podcast's audience
    - Nearly 70% of respondents exposed to podcast advertising agreed that the podcast ad they experienced increased their awareness of new products/services
    - 62% correctly recalled the brand advertised in the podcast
    - 69% agreed the podcast ad experienced in the study "made me aware of new products/services"
    - 62% agreed the podcast ad experienced in the study "made me consider new products/services"
  - Statistics on the increasing popularity of podcasts
    - 70% of Americans have heard of podcasts
    - 51% have listened to a podcast
      - 20 million new listeners just in 2019
    - 32% of Americans listen to podcasts monthly

- o 25% listen to podcasts weekly
- o 54% of podcast listeners are more likely to consider buying an advertised product
- o USA podcast age demographics
  - ▪ 12-34: 48%
  - ▪ 35-54: 32%
  - ▪ 55+: 20%
- o 25% of US Podcast listeners have a 4-year college degree
- o 93% listen to all or most of each episode
- o Advertising statistics
  - ▪ 81% of podcast listeners pay attention to podcast ads
  - ▪ 60% of avid podcast listeners have bought something from a podcast ad
  - ▪ 54% are more likely to consider the brand advertised compared to 7% less likely

Podcast Consumers Are an Advertiser's Dream

78% approve of podcast advertising[1]

67% remember brands and products from podcast ads[2]

63% made a purchase after hearing podcast ads[2]

Sources: www.cnbc.com & www.iab.com

- ● Most listened to podcast genres by weekly podcast consumers (Highlighted genres are recommended podcast genres that OSE should target)
  - o Comedy - 36%
  - o News - 23%
  - o Society and culture - 22%
  - o Sports - 15%
  - o True Crime - 12%
  - o Arts - 11%
  - o Business - 10%
  - o Religion - 8%
  - o Science - 6%
  - o Education - 3%
  - o Technology - 3%

Implementation:

- Step 1: Target podcasts with an audience that fits your market
  - o What to identify in Podcasts:
    - ▪ Podcast name
    - ▪ Podcast website URL
    - ▪ Podcast topic
    - ▪ Hostname
    - ▪ **Host's email address**
  - o Use targeting websites: https://app.matchmaker.fm/login
    - ▪ This website can help match OSE to find podcasts that may fit OSE interests and talking points
- Step 2: Construct a good pitch
  - o Once you have a written pitch you can easily reuse for all emails
  - o What to include in a podcast guest appearance pitch
    - ▪ Include a little about your are of expertise
    - ▪ How OSE can solve a problem that many of the podcast's listeners may have
    - ▪ Provide an unconventional opinion: A strong opinion you may hold that counters a common viewpoint in your target market
  - o Write about each of these points knowing that you can talk about each section for about 20-30 minutes
- Step 3: Locate the podcast host's email
  - o Locate the host's email (would not recommend looking for an email for more than 5-10 minutes)
    - ▪ Usually, a quick search can find the host's email
    - ▪ Where to look for emails
      - ● On the about page of the show
      - ● The host's personal web page
      - ● As the "reply-to" address on the podcast's newsletter
      - ● Online websites to find emails
        - o Hunter
        - o Any Mail Finder
- Step 4: Send email
  - o Example template from PodcastMotor

Hello NAME,
I'm a big fan of PODCAST NAME and loved the recent episode where you talked about TOPIC.
I help teach people BENEFIT FOCUSED OUTCOME. I'd love to help teach your audience about any of the following topics:
Topic #1 — Short description of your first topic and the benefits to the listeners of hearing you two talk about this.
Topic #2 — Short description of your second topic and the benefits to the listeners of hearing you two talk about this.
Topic #3 — Short description of your third topic and the benefits to the listeners of hearing you two talk about this.

- Step 5: Follow up
    - o Keep reaching out even if the podcast does not respond. Especially if you really think the podcast can benefit OSE brand awareness
    - o Things to possibly include in a follow-up email
        - ▪ Links to other podcasts you have been on
        - ▪ Sharing online proof of your success(social media, testimonials, old STEAM camp videos or data)
        - ▪ Links to other articles or marketing assets (TedTalk)
- Step 6: Make the most of your guest appearance
    - o If it's your first time on the podcast, refrain from directly promoting the STEAM camp and try to get sign-ups
        - ▪ Promote other aspects of OSE such as social media, website, and online courses to develop brand awareness
    - o Develop connections with the podcast hosts
        - ▪ This will happen naturally through good conversation
        - ▪ Can lead to…
            - ● Implementation of targeted podcast advertisements
            - ● Referrals to other podcasts for guest appearances

Return on Implementation: (time calculation)
- Time commitment (reach out to 5 podcasts a week)
    - o Step 1: take 2-3 hours to construct a good pitch that can be used to send to all podcast hosts (one time commitment)
    - o Step 2: Assume it takes 20 minutes to listen and gather information about each podcast x 5 = 100 minutes/week (repeating commitment)
    - o Step 3: Assume ~15 minutes to locate the host's email and send the email with the designed pitch template. Add about 30 minutes a week for coordinating and responding to emails that hosts return. = 105 minutes/week (repeating commitment)
    - o Step 4: guest appearances take about 30 minutes - 2 hours. Assume 1 appearance a week for the first year = 120 minutes a week (repeating commitment)
    - o Total time commitment: 5.4 hours/week
- Potential participants (note: numbers can greatly vary depending on how many listeners per each podcast and how similar the podcast's audience is to OSE target market. This calculation is an average estimate per guest appearance)
    - o Step 1: Assume 1 guest appearance a week on a podcast with a minimum of 3,500 listeners (3500+ is a top 10 podcast)
    - o Step 2: Assume click rate on OSE website and social media from the appearance is ~10%. =3500*.10 = 350
    - o Step 3: assume a conversion rate of listeners on the website/social medias to be a low 0.5%. 350*.005 = ~1.75 Participants

- ROI:
  - o Weekly estimation: 1.75 Participants/5.4 hours
  - o Time to acquire 1 participant: 1 participant/3.08 hours
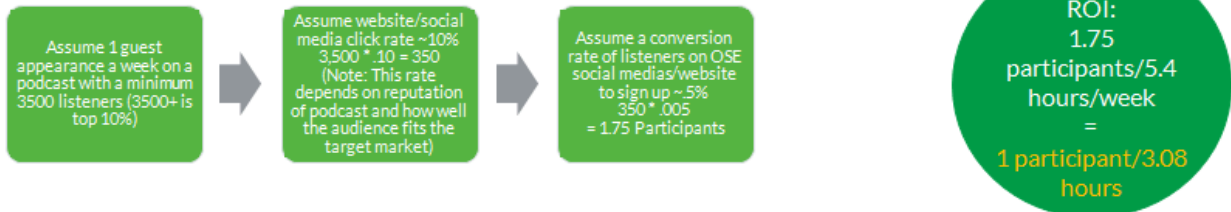
Time Commitment:

Take about 2-3 hours in total to construct a good pitch template that can be used for all emails sent to podcast hosts

+

Assume it takes ~20 minutes to listen and gather info about each podcast x 5 podcasts a week =100 Minutes/week

Assume ~15 mins to locate host's email & send the email (x 5/week). +30 minutes a week for scheduling time. =105 minutes/week

Guest appearances usually are around 30 mins-2 hours long. Assume 1 appearance a week for the first year. =120 mins/week

Potential Participants:

Assume 1 guest appearance a week on a podcast with a minimum 3500 listeners (3500+ is top 10%)

Assume website/social media click rate ~10% 3,500 * .10 = 350 (Note: This rate depends on reputation of podcast and how well the audience fits the target market)

Assume a conversion rate of listeners on OSE social medias/website to sign up ~.5% 350 * .005 = 1.75 Participants

ROI:
1.75 participants/5.4 hours/week
=
1 participant/3.08 hours

Risk Analysis

	Risk	Mitigation Plan
1	Low response rates from podcast hosts	1. Email as many podcasts as possible to increase the chances of success 2. Follow up with reasons the appearance will benefit the podcast 3. Promote past appearances/TedTalk to hosts
2	Low conversion rates from podcast audience	1. Target podcasts that are highly related to OSE and have a large audience base 2. Use the guest appearance to develop strong connections with the podcast host 3. Promote the podcast on OSE social medias and use to

Interesting Links

- https://www.facebook.com/business/help/2354934928109168?id=939256796236247
- https://www.facebook.com/facebookmedia/blog/understanding-how-your-videos-perform-on-facebook
- https://www.wordstream.com/blog/ws/2018/06/05/podcast-advertising
- https://www.marketingdive.com/spons/is-podcast-advertising-effective/553581/
- https://www.nielsen.com/wp-content/uploads/sites/3/2019/04/podcast-sponsorship-effectiveness.pdf

- https://www.forbes.com/sites/forbesagencycouncil/2018/08/01/a-survival-guide-for-podcast-advertising/#3a54b63e
- https://business.linkedin.com/marketing-solutions/blog/best-practices--social-media-marketing0/2019/how-to-grow-your-organic-following-on-linkedin-
- https://www.forbes.com/sites/work-in-progress/2013/01/20/10-steps-to-create-a-linkedin-company-page/
- https://www.businessinsider.com/how-to-create-a-company-page-on-linkedin
- https://www.youtube.com/watch?v=ORo2jBV8YWc
- https://komarketing.com/blog/manage-company-page-linkedin/

Inorganic Social Media: Facebook Advertising

Overview: This branch involves posting advertisements on Facebook to generate awareness of OSE and its STEAM Camps, generate clicks to the OSE/STEAM Camp website, and generate conversions in the form of STEAM Camp sign-ups.. The following recommendations and implementation plan explain how best to run a successful inorganic Facebook ad campaign.

Analysis/Recommendation

With Facebook under investigation for privacy violations, consumer attitudes toward Facebook have worsened. 74% of US internet users between the ages of 18 and 34 are concerned about how Facebook uses their data. 80.8% of US internet users between the ages of 35 and 44 are concerned about how Facebook uses their data. Overall, only 22% of US internet users trust Facebook with their personal data. This could have possibly led to declining penetration rates for Facebook. However, Facebook has incredible reach, with about 220 million US users. Therefore, due to negative public opinion on how Facebook uses user data, Facebook's declining user penetration, and the cost of Facebook inorganic ads, we recommend that this recommendation be implemented for the short term. The main objective of the Facebook ad campaign should be to gather clicks to OSE's STEAM Camp website and generate conversions. Therefore, we recommend to post ads 3 months before the STEAM Camps. The best times to post ads on Facebook are between 12pm and 3pm on weekdays and between 12pm and 1pm on weekends. In terms of ad design, we recommend including effective call-to-action that guides users towards STEAM Camp sign-ups. For example, a "sign up" button encourages action more than a "learn more" button. In terms of ad design, we also recommend using everyday language that is quick and to the point. Since Facebook uses the maximum bid, ad's quality and relevance, and estimated engagement rate as criteria to determine ad auction winners, we recommend using the Cost Cap bid strategy and the Quality Ranking function when setting up and posting ads.

Implementation

1. Design the advertisement: Use A/B testing to experiment and learn how to maximize ad CTR rates
2. Select targeting options: Use similar targeting options to that of other promotions/advertisements of other branches. The idea is for people who hear about OSE through other channels (i.e. Youtube, podcasts, etc) to see the ads on Facebook, which may play into encouraging them to sign up for STEAM Camps. Since Facebook provides data on the estimated reach of the ad to the targeted demographic, make sure that the reach is sizeable
3. Use Facebook's Quality Ranking function to make sure Facebook doesn't deem the ad as being low quality

4. Deploy advertisement: Use the Cost Cap bid strategy when selecting the ad's pricing scheme. We recommend refraining from making excessive edits after deployment, as Facebook's algorithm deploys a learning phase to know how best to serve the ad.
5. Deploy ad and track key performance indicators, such as number of landing page clicks, number of shares, number of likes, and number of comments

Return on Implementation:
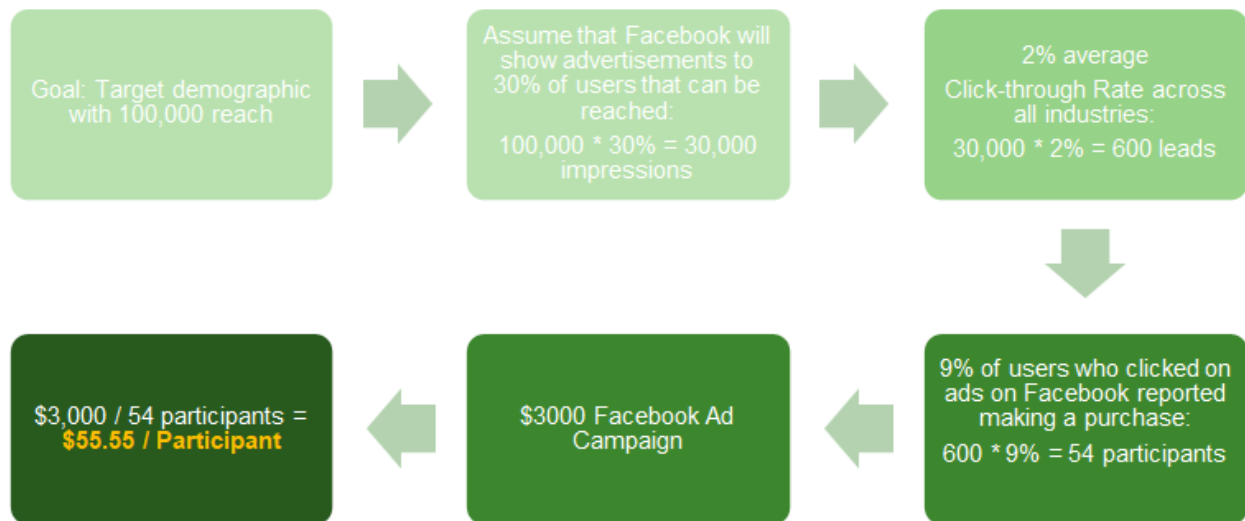
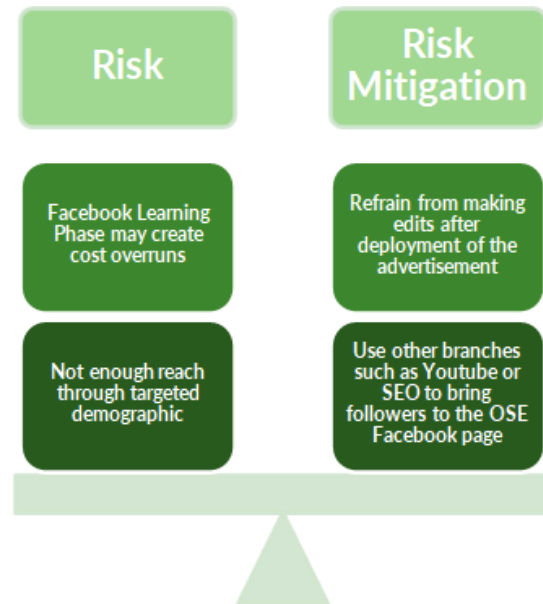*The average Click-through Rate and conversion rates have been changed to 2% and 9% respectively to represent a more conservative and safer estimate

Risk Analysis

Inorganic Social Media: LinkedIn Advertising

Overview: This branch involves posting advertisements on LinkedIn. Since LinkedIn is more professionally-minded, we believe that OSE will have a substantial audience in LinkedIn. We believe open source development is a good practice that many professionals would be interested in implementing in their businesses and workplaces.

Analysis/Recommendation

LinkedIn's advertising options are quite basic when compared to Facebook's, but LinkedIn excels in the rich data that can be collected and analyzed. LinkedIn allows specific targeting by offering 7 core targeting categories: 1) Geographic location, 2) Company (i.e. company industries, company employees, etc), 3) Demographics (i.e. age, gender), 4) Education, 5) Job Experience, 6) Interests and traits, 7) Matched audiences (i.e. audience LinkedIn determines as relevant based on primary data). After selecting different targeting options, LinkedIn will show the predicted target market size. This is important, as a target market size that is too small will not get the ad shown, but a target market size too large will have too much competition in the ad auction; thus, the ad will not be shown. Therefore, we recommend following the Target 2 rule, which states to target 2 categories excluding geographic location and any number of subcategories in each of the 2 categories. Therefore, OSE will be able to balance between targeting too few LinkedIn users and targeting too many LinkedIn users. We recommend to target users in local counties/states first and eventually scale up to targeting users nationwide. Targeting wise, we also recommend targeting users in the education, mechanical engineering, electrical engineering, software engineering, IT, civil engineering, social entrepreneurship, agriculture, and manufacturing industries with interests in manufacturing, 3D printers, programming, technology, open source, Arduino, makerspaces, engineering, and social entrepreneurship. If OSE has quality primary data available, we recommend targeting users through a matched audience.

LinkedIn offers different campaign objectives, which will optimize the ad campaign for the selected objective. For example, selecting the brand awareness option optimizes the campaign by showing the ad to as many LinkedIn users as possible. If OSE's budget allows, we recommend 3 campaigns, in which 1 campaign raises awareness through LinkedIn sponsored content, another campaign generates interest through sponsored content or dynamic ads, and the final campaign generates conversions through dynamic ads or sponsored InMail.
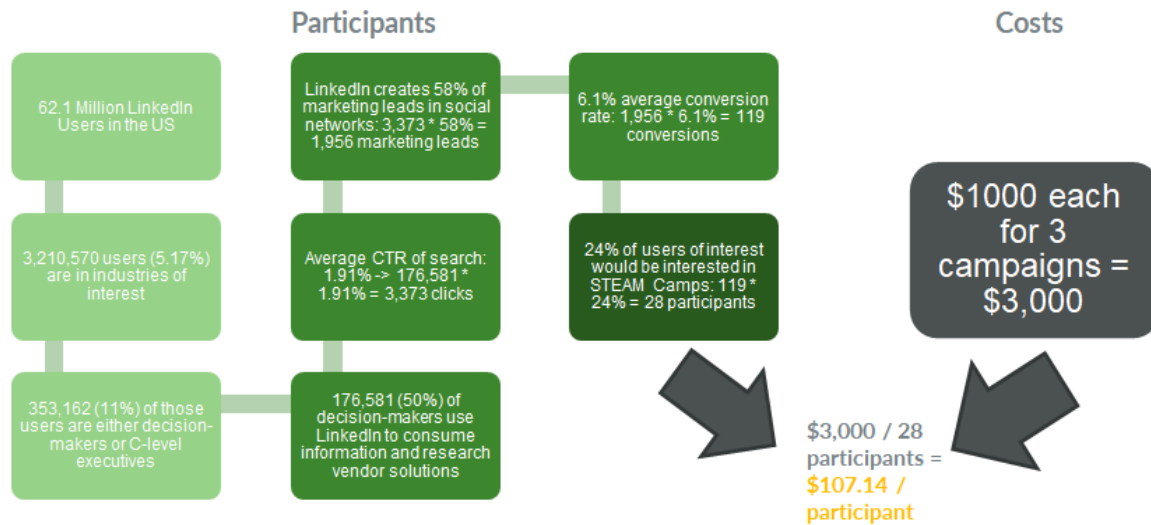
In terms of pricing, we recommend using CPM pricing for brand awareness, CPC pricing for lead generation, and CPS (cost per send, which is relevant for InMail ads) for conversions if Matched Audiences was used for targeting users. OSE's overall pricing strategy should be either to automate bids and set maximum monthly budget to $1,000 or set a maximum cost bid that is not conservative and a maximum budget of $1000/month. Content-wise, we recommend that OSE posts ads with videos like the Ted Talk or headlines/text with links to OSE's about us page for the brand awareness campaign.

Implementation
1. Develop Content: Determine objective of the specific ad and use the ad's content and design to reflect that objective. For example, an ad that generates awareness by increasing the number of followers to OSE's LinkedIn page can offer a white paper or research paper on open source development in enterprises in exchange for following OSE's LinkedIn page.
2. Target Audiences: We recommend following the Target 2 rule, which states to target 2 categories excluding geographic location and any number of subcategories in each of the 2 categories. We also recommend targeting users in the education, mechanical engineering, electrical engineering, software engineering, IT, civil engineering, social entrepreneurship, agriculture, and manufacturing industries with interests in manufacturing, 3D printers, programming, technology, open source, Arduino, makerspaces, engineering, and social entrepreneurship. If OSE has quality primary data available, we recommend targeting users through a matched audience.
3. Select Pricing: Use CPM pricing for brand awareness, CPC pricing for lead generation, and CPS (cost per send, which is relevant for InMail ads) for conversions if Matched Audiences was used for targeting users. OSE's overall pricing strategy should be either to automate bids and set maximum monthly budget to $1,000 or set a maximum cost bid that is not conservative and a maximum budget of $1000/month.
4. Deploy and Measure: Use KPIs such as number of page follows, number of clicks, number of ad reactions to evaluate the ad and experiment to increase the ad's clickthrough rate.

Return on Implementation:

Participants

62.1 Million LinkedIn Users in the US	LinkedIn creates 58% of marketing leads in social networks: 3,373 * 58% = 1,956 marketing leads	6.1% average conversion rate: 1,956 * 6.1% = 119 conversions
3,210,570 users (5.17%) are in industries of interest	Average CTR of search: 1.91% -> 176,581 * 1.91% = 3,373 clicks	24% of users of interest would be interested in STEAM Camps: 119 * 24% = 28 participants
353,162 (11%) of those users are either decision-makers or C-level executives	176,581 (50%) of decision-makers use LinkedIn to consume information and research vendor solutions	

Costs

$1000 each for 3 campaigns = $3,000

$3,000 / 28 participants = $107.14 / participant

Risk Analysis

OSE loses auctions and ads don't get shown	OSE's advertisements may not get the exposure it needs	Overall Advertisement Campaign may not be successful with a $3,000 budget
• Automate bids to get the maximum ad exposure • Set maximum CPC or CPM liberally	• Target at most 2 categories (excluding location) and any amount of subcategories • Broaden targeting	• Focus on brand awareness campaign to attract followers to OSE's LinkedIn page • Use organic marketing in place of the conversion and website clicks campaign

Online Courses

Overview*:* OSE has prior experience delivering instruction remotely to participants who cannot attend in person STEAM camps. The goal of this branch is to incorporate the existing remote learning structure and turn them into online courses available first on Skillshare. By doing so, it will help OSE expand their brand awareness and eventually will lead to an increase in signups for in person STEAM camps.

Analysis

Overview: We have identified four main reasons for which we believe that hosting online courses would be beneficial to OSE.

1. **Ready to Teach.** OSE has teachable content already prepared in course format through way of their remote participation for STEAM camps. The STEAM camp instructions are split into days, these days can be further split into various online course content.
2. **Offer Anytime**. As more and more people become connected to the internet these online courses would be available to anyone at any time as opposed to scheduled workshops.

3. **Cross Platform Reach**. Although we recommend beginning on SkillShare, it is possible to upload the same content onto other MOOC platforms as there are no exclusivity clauses. Sharing courses onto other MOOC platforms can increase OSE exposure.
4. **User Friendly**. SkillShare offers a teacher friendly platform with integrated analytics as well as a teacher guide that walks teachers through every step of the process.

Implementation
Overview: There are four key steps to implement this recommendation.

1. **Create Anticipation**. Publicize the making of the online course via social media. OSE should also consider making a demo course on YouTube to showcase what users can expect once the classes are released/
2. **Organize Lesson Plans.** First, create a teacher SkillShare account. Then begin organizing lesson plans for various 30 - 60 minute course videos, including possible assignments. Although STEAM camp lessons span days, it is important to condense these videos into smaller chunks to help retain students and have them watch all the way through.
3. **Film and Edit.** Once a lesson plan is created begin filming and editing course videos. Video quality must meet Skillshare guidelines to avoid videos getting taken down. Skillshare has their video quality outlines available on their teacher handbook.
4. **Republicize Course Launch.** After uploading content, remind OSE followers about courses and create affiliate links. Additionally, optimize SEO and other social media to garner attention and attract more users to the course.

Return on Implementation:
Overview: The costs associated with this branch might differ slightly from traditional ROI. Creating online courses provides a flexibility on the price as it can be done with bare minimum resources. Aside from the software subscriptions the costs associated are mostly one time costs for the equipment that is why we also included an estimate of time costs.

This branch is implemented during the second phase of the overall implementation which is approximately 3 months long.

Month 1:
- Goal for Month 1 should be to release at least 3-4 videos
- Creating a lesson plan, filming and editing then uploading should take about 6 hrs for one video.
- 6hrs * 4 videos = 24 hrs needed

Month 3:
- No videos should be released during Month 2, primary focus should be marketing Month 1 videos.
- Release 3-4 more videos during Month 3
- Additional 24 hrs needed for this month

ROI:
- A minimum of 48 hrs will be needed for this branch.
- As STEAM camps approach release videos that reflect the experience such as the Design Sessions.

Skillshare Audience Reach
1. 200,000 new monthly users but only 20% are from the U.S. About 40,000 users in the U.S
2. 4% of users who sign up for an account do not come back. About 38,400 users
3. 18% of users look into STEM related courses. About 6,912 users
4. 14% of STEM users interested in Collaborative Design and Management. About 967 users
5. 4-6% of users will enroll based on preview video alone. About 19 users

OSE could hope to gain about 19 new monthly users if they properly optimize their SEO and release quality content. This number represents the number of users that will sign up for their online courses and not necessarily how many in person STEAM camp attendees they can expect. We could not find a reliable data point to see how many people would transition from an online workplace to an in person event.

Costs for Online Classes
- Skillshare platform cost: Free
- Software costs:
  - Screen Capture Software: $16 per year (screencast o matic)
  - Audio Editing: Free (Audacity)
  - Video Editing
    - Free option: iMovie for mac or Blender on Windows
    - Filmora9 : $40 per year
- Equipment costs
  - Lapel Microphone : $30
  - Tripod: $25
  - Camera:
    - Free option: Use a good phone camera (Iphones)
    - $200 for a decent camera
  - (optional) Acoustic panels : $25 each
  - (optional) Studio Lighting Kit: $70

● Total Cost (excluding optional) : $311

Risk Analysis

Overview: Analyze the potential risks in hosting online courses.

Potential Risk #1: Not enough people enroll in STEAM camp courses.
● This risk can be mitigated by branching out and teaching courses that are similar. Courses on FreeCAD or Raspberry Pi can help OSE tap into other corners of the Skillshare marketplace.

Potential Risk #2: People who are enrolled in the courses might not come out to in person STEAM camps.
● This risk can be mitigated by offering exclusive incentives for students such as priority registration or even a slight discount.

Strategic Partnerships

Recommendations / Analysis:
The strategic partnerships branch is meant to raise brand awareness in Phase 1 and convert interested parties into STEAM Camp attendees in Phase 3. We broke the strategic partnerships branch into four sub-branches: high school partnerships, postsecondary institution partnerships, nonprofit organization partnerships and open-source company partnerships. For each sub-branch identified, we recommend:

- High Schools: Create special events such as assemblies or interactive fairs for schools.
- Postsecondary Institutions: Partner with organizations or special programs with similar missions as OSE.
- Nonprofits: Sponsor another nonprofit's mission or create a collaborative project with them.
- Open-Source Companies: Create cross-marketing relationships or create collaborative products and projects.

Why should OSE pursue partnerships? In 2013, KPMG found that 71% of companies worldwide engage in CSR reporting (Vartiak, 2016) and a "brand's ethics and social responsibility can influence purchasing decisions and loyalty for many millennials-- a generation transitioning into their prime spending years" (Koch, 2020). This data shows a positive trend for companies to partner with nonprofits to boost their image; in other words, it shows that the likelihood for a company to agree to a partnership is high. There are also many successful partnerships that we can draw this recommendation from (i.e. SparkFun x Raft, Arduino's cross-marketing campaigns).

Implementation:
The implementation of these strategic partnership branches boils down to three steps: outreach, deciding and agreeing on the terms of partnership with the interested partner, and carrying out the partnership. The biggest difference amongst the implementation of the four sub-branches is the criteria list.

- Educational Branches (High Schools and Postsecondary Institutions)
  - High School Criteria:
    - Aim for schools with larger populations (at least 530 enrolled students)
    - Focus on schools that are STEM-oriented
      - STEM-based magnet high schools, private high schools, charter schools
      - https://www.niche.com/k12/search/best-private-high-schools-for-stem/

- https://www.usnews.com/education/best-high-schools/national-rankings/stem
  - ▪ Choose high schools based on location close to OSE headquarters or near the sites of STEAM camps
- o Postsecondary Institution Criteria:
  - ▪ Choose schools based on location close to OSE headquarters or near the sites of STEAM camps
    - ● Generally, schools with higher student populations are favorable
  - ▪ Consider schools that already have established student run organizations that mirror OSE goals (i.e. IEEE)
  - ▪ From there, choose student organizations that seem to have the highest participation and engagement rates at that school
    - ● Their activity on social media is good indicator
- o Implementation
  - ● Make a shortlist of schools with similar student population and STEM organizations / programs
  - ● Establish contact with desired partners
  - ● Create a partnership proposal that would fit with organization and OSE goals
    - o Many student run organizations might have different motives so it is important to assess what that entail
    - o Set quantifiable goals and general steps on how to proceed
    - o Use of a notary or memorandum is not necessarily required with these types of partnerships
  - ● Sustain relationship with partner even after it has ended
    - o New student run groups may emerge that could be directed towards OSE
- ● Non-Educational Branches (Nonprofits and Open-Source Companies)
  - o Criteria
    - ▪ Similar mission statement
      - ● OSE should find potential partners that have similar values.
    - ▪ Social Impact / Similar target audience
      - ● Identifying nonprofits with meaningful social impact projects. Established programs can increase OSE exposure in the long run.
        - o This works both ways as partners will also look for more exposure through OSE networks.
      - ● Determine if the open-source company has a similar clientele as OSE.
    - ▪ Financial Viability
      - ● Financial sustainability within a nonprofit is important if OSE is looking to minimize cost. It would be more favorable to OSE to partner with 501c3 status organizations.
        - o This status serves as an indicator of how legitimate a nonprofit is, at least in the US.

- - - Ensure that the open source company that OSE is planning to partner with has the financial means to afford this partnership.
    - Engagement and Communication / History of partnerships
      - Nonprofits and companies with established infrastructure dedicated to building partnerships are easier to work with. This will help with establishing a connection once a partner is identified.
      - (Preferred not required) The partner identified should have an established social media presence.
  - Implementation
    - Compile a short list of potential organizations that OSE would like to partner with.
      - Many organizations on the preliminary list will be similar therefore it is important to differentiate between them.
        - ex. Are they 501c3 status? Which ones have a bigger social media presence? Do they have a dedicated department for partnerships?
    - After deciding on which organization to pursue, begin initiating contact.
      - Most common method of reaching out is through email.
        - Email Tips:
          - Overview of OSE mission statement and how they overlap with partner's.
          - Link the TedTalk as an example.
          - Attempt to include answers to potential questions they might ask.
            - This serves to not only speed up the process but demonstrates eagerness to collaborate.
    - Once contact is established, begin engaging in exploratory discussions.
      - Important to talk about any potential conflicts or delays early on.
      - Begin introducing other key members to the discussion if you haven't already.
      - Agree on a communication plan.
    - (Recommended) Prepare a memorandum that details what was agreed upon.
      - Include a confidentiality provision
      - Use of an attorney or notary is recommended
    - (Recommended) Keep in touch with partners even after the agreement has expired. They can still provide valuable services or contacts if everything has gone well.

Return on Implementation:

Please note that these conversion rates are based on the average conversion rate from leads to sign-ups through landing pages (which on average, is 2-5%). However, we adjusted for a

higher conversion rate in our return on implementation breakdown because we are expecting OSE to target potential partners that already have a similar target audience as OSE.

In addition, the hours we assume that will be needed to make a partnership succeed are speculated, since this is a factor that will be determined while negotiating the terms of partnership. We believe that these are the minimum hours required to make a partnership in these branches successful.

- High School ROI: 5 hours / participant

HIGH SCHOOL PARTNERSHIPS: ROI

528 students on average per high school across 26,986 secondary schools in the United States.

We assume 5 hours are needed to make this partnership successful.

26 students interested in OSE, if 5% of the student body gains interest.

1 participant per school for the STEAM camp, if 5% of interested individuals want to learn more.

5 hours / Participant

180 DEGREES CONSULTING

Sources: Independent Sector, Indeed   27

- Postsecondary Institutions ROI: 1.5 hours / participant

POSTSECONDARY INSTITUTIONS: ROI

26,436,441 students enrolled / 6,132 postsecondary institutions = 4,311 students on average per institution.

8 participant per school for the STEAM camp, if 8% of interested individuals want to learn more.

We assume 12 hours are needed to make this partnership successful.

The national average of students in majors of interest is about 24%, meaning 1,034 people will be interested in OSE.

10% of the students of interest learn about this partnership, so 103 students will be exposed to OSE.

1.5 hours / Participant

- Nonprofits ROI: 15 hours / participant

NONPROFIT ORGANIZATIONS PARTNERSHIPS: ROI

1,600,000 nonprofits across the United States, 11,400,000 people work in nonprofits, 63,000,000 people volunteer for nonprofits.

1 participant per organization for the STEAM camp, if 5% of interested individuals want to learn more.

We assume 15 hours are needed to make this partnership successful.

(11.4 + 63) / 1.6 Partnering with one nonprofit will reach 47 individuals.

Assuming that 50% of the group will want to learn more, we have 24 interested individuals.

15 hours / Participant

- Open-Source Companies ROI: 15 hours / participant

OPEN SOURCE COMPANY PARTNERSHIPS: ROI

- 1,332 open source companies across the United States, with 20 employees on average per company.
- We assume 15 hours are needed to make this partnership successful.
- Assuming 50% of employees want to learn more about OSE, we have 10 interested individuals.
- 1 participant per company for the STEAM camp, if 10% of interested individuals want to learn more.

15 hours / Participant

Risk Analysis:

Here, we consider the potential risks that may be associated with partnerships, and ways in which OSE can reduce these risks.

- There may be low response rates from many high schools, postsecondary institutions, nonprofits and open source companies.
    - Mitigation: To increase partnership likelihood, one of the criterias to consider while considering partners is their history of partnerships.
- The partner may end up being financially unsound during the partnership.
    - Mitigation: Select organizations that are transparent and publish their finances (i.e. annual report) and social impact measurements.
- There may be disagreements that arise between the two parties while the partnership is in place.
    - Mitigation: Make assumptions known and detail the goals, values and needs that each party has while drafting a partnership proposal.

Grading Criteria Examples:

Below are two examples of evaluating criteria for partnerships.

- Nonprofit Criteria Assessment:
    - DFF) is a <u>non-profit organization</u> that acts as the official organizer of <u>Software</u>, <u>Hardware</u>, and other Freedom Days, and is the legal body that handles donations, sponsorship contracts, and accounting. These 'freedom' days focus on the importance and availability of open source software and hardware.
    - Social impact programs include Software / Hardware / Document Freedom days organized all over the world. *The only US event in 2019 was in Florida*

- ▪ Mission Statement - "... the basic human freedoms you take for granted are only as free as the technologies you use."
  - o DFF has many notable sponsors such as Google, Linode, and Linux Journal (for media)
  - o DFF has many notable sponsors so our assumption is that they already have an infrastructure in place to accommodate partnerships.
    - ▪ Twitter - 272 followers
    - ▪ Facebook - 670 followers
    - ▪ Notable locations where they have held events before :
      - ● New York, Miami, Germany, Spain, UK
- ● Open Source Company Criteria Assessment
  - ● SparkFun Electronics is an online retail site that sells electronic parts. They also have an educational branch that teaches individuals how to use these electronics.
  - ● Criteria Assessment
    - o Mission statement / values
      - ▪ In the press and media relations page of the SparkFun website, three of the things they say they are passionate about (that align with OSE) are electronics, open source and education.
      - ▪ SparkFun also offers educational resources online and free tutorials.
    - o Similar target audience
      - ▪ Based on the products that SparkFun offers, we can conclude that their customers are mainly people who have technological experience or want to explore that field.
    - o Financial viability
      - ▪ The company was founded in 2003 and has over 150 employees (higher than the national average).
    - o Engagement and communication / History of partnership
      - ▪ Sparkfun has a community partnership program
        - ● SparkFun x RAFT Partnership
    - o Social media presence
      - ▪ Facebook: 87,107 likes and 89,225 followers
      - ▪ Twitter: 138.2k followers
      - ▪ Instagram: 82.4k followers
      - ▪ LinkedIn: 11,942 followers

To put everything into perspective, if we assume that our implementation plan for Open Source Ecology will be 100% successful, we can expect to bring 196 participants to Open Source Ecology's STEAM Camps. Our summary analysis is given in the picture below.

TOTAL RETURN: 198 Participants
TOTAL COSTS: $10,720 1,781 Hours
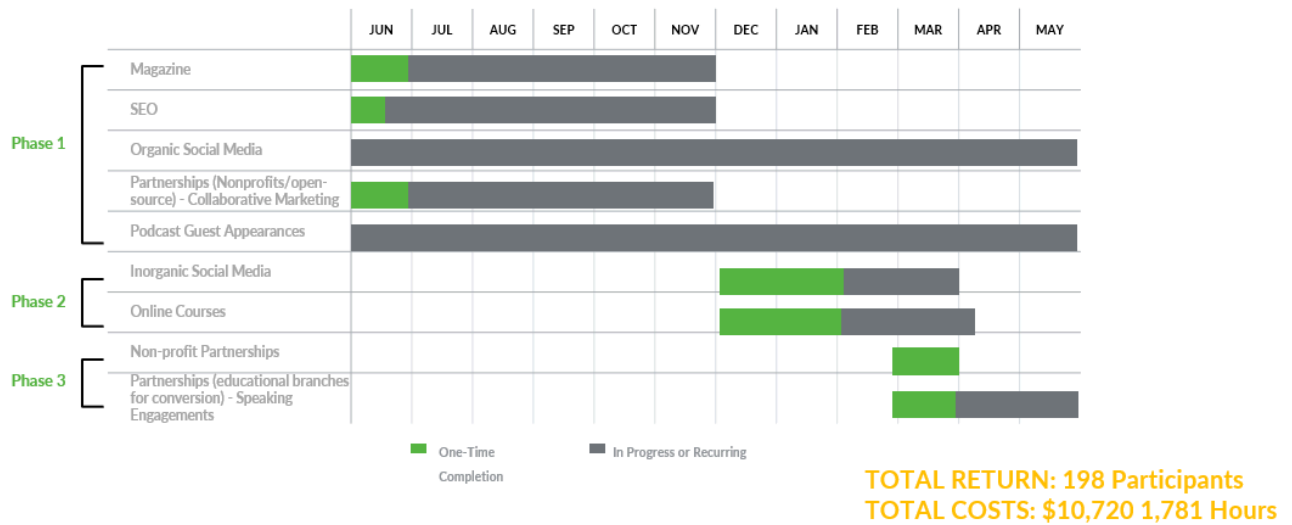
With this, we bring this report to an end. We hope to see Open Source Ecology achieve great success and increase scale of its STEAM Camps. Should you have any questions about anything mentioned in the report, please don't hesitate to reach out to either matthewnguyen@180dc.org, chapmanli@180dc.org, or uci@180dc.org.

Auxiliary Recommendations

<u>Custom URLs</u>
- Can be used to track the efficiency of different campaigns
- Can be built through Google Campaign URL Builder
    - o Requires a Google Analytics account to track the results
    - o Link to Google Campaign URL Builder:
      https://ga-dev-tools.appspot.com/campaign-url-builder/
- There are 5 parameters that can be specified for the URL
    - o 1. Campaign Source (i.e. Facebook, Youtube, etc)
    - o 2. Campaign Medium (i.e. Banner ad, Youtube promotion, etc)
    - o 3. Campaign Name
    - o 4. Campaign Terms
        - ▪ These are the paid keywords that have been tagged to the campaign
    - o 5. Campaign Content
        - ▪ Ex: You have two campaigns with different call-to-action buttons. This
          information would go into this parameter
    - o Parameters 1, 2, and 3 are required to set up a custom URL.
    - o Parameters 4 and 5 are optional
- To see custom campaign data
    - o 1. Sign in to Google Analytics
    - o 2. Navigate to the view that is associated with the campaign
    - o 3. Open Reports
    - o 4. Select Acquisition > Campaigns
- Please see links below for more information
    - o https://support.google.com/analytics/answer/1033863?hl=en
    - o https://support.google.com/analytics/answer/1033867?hl=en

<u>Employee Advocacy</u>
- According to a study conducted by The Marketing Advisory Network, brand messages
  reach 561% further when shared by employees than when shared by the
  company/organization's social media channels
- Brand messages are also shared 24 times more frequently when shared by employees
- Employee Advocacy is a form of collaborative marketing, as employees can help bring
  awareness of OSE while building their personal brand and become established as thought
  leaders on social media, such as LinkedIn
    - o Nearly 86% of employees who participated in an employee advocacy program say
      that it has positively impacted their career
- Training would need to be given to help and encourage employees to share OSE content
  on social media. The training should include tips on…

- o 1. Best times and days to post
- o 2. How often to post
- o 3. Potential topics and links to share
- o 4. How to optimize social media profiles
- o 5. Relevant social media channels
- o 6. List of appropriate hashtags
- o 7. Suggested captions for sharing content
- The key to employee advocacy programs is asking employees to voluntarily promote the company/organization without mandating them to
- It is important to recognize employees who promote OSE online
  - o Recognize employees not just on their work on promoting OSE on social media, but also their work in general
- Small incentives (i.e. gift cards, prizes, etc) can be helpful with motivating employees
- Having a leadership board, in which the top employee advocates win prizes, or a raffle for employees who promote OSE on social media can also help motivate them
- List of employee advocacy software: https://www.g2.com/categories/employee-advocacy

Ideas for Social Media Marketing
- Offer a white paper or report on LinkedIn in exchange for following the OSE LinkedIn page
- Collaborate with a content creator by using each other's expertise to build something interesting together
- Sponsor a content creator to attend a STEAM Camp, which they can make a vlog about
- Have a content creator promote OSE by interviewing someone from OSE about its social impact
- Collaborate with a content creator by using each other's expertise to make in-depth tutorial videos
  - o Ex: Content Creator partner can teach the coding/programming side of a particular project and OSE can teach the hardware aspect of a particular project
- OSE can engage with tech review channels by sponsoring them to attend a STEAM Camp, and they can review their overall experience at the STEAM Camp
- Collaborate with a content creator by having a friendly competition against each other
  - o The competition can be about building something interesting and useful using open source software, hardware, and information
  - o Can compare and contrast each other's design and test to see whose design is better
- Youtube content creator can promote OSE by reviewing hardware sold by OSE

Ideas for STEAM Camps Pricing and Product Strategy

- The time commitment and steep price of STEAM Camps can deter many people from attending. Therefore, OSE should price STEAM Camps to reflect the target demographic's concerns and offer STEAM Camp alternatives that are both cost effective and flexible with time
- When partnering with a nonprofit partner, consider splitting the price in half (i.e. OSE covers administrative costs and nonprofit partner covers instructor costs)
- Consider offering a student discount to university and high school students
- Hold STEAM Camps when university and high school students are on academic breaks (i.e. winter break, summer break, etc)
- Offer a complete online STEAM Camp with certification upon completion as an affordable and time flexible alternative
- Offer a "Bring a Friend" discount, in which if two people sign up together, both can get a discount to their registration fees or travel expenses (i.e. cover airfare or hotel expenses, give a prepaid visa card to cover any travel expense)

YouTube Influencer Promotions

Overview: This branch involves marketing through promotions by content creators on Youtube. The purpose of these promotions will be to raise awareness about OSE and the STEAM Camps. Furthermore, content creators understand their audiences best and will know how to tailor their content to appeal to them.

Analysis/Recommendation

Content Creators appeal to younger audiences and can help raise awareness for a variety of topics. According to eMarketer, 57% of millennials agree that they will more likely become conversions if the influencer promoting the product or service is knowledgeable about it. Furthermore, according to GlobalWebIndex, a marketing research company, 1 in 5 millennial and Gen Z respondents in their survey reported making a purchase inspired by influencer or celebrity posts on social media.

According to eMarketer, the most important factor content creators take into account when deciding whether or not to pursue a partnership is trust. Therefore, it will be important for OSE to be upfront about what it wants to accomplish and how its mission and the STEAM Camps are relevant to his/her audience.

Many content creators see their role in marketing and promotion of goods and services as raising awareness. It is very difficult to measure results from a specific promotion, since there are a wide

variety of factors that can drive a conversion (i.e. influencer promotions, exposure through print media, awareness through podcast guest appearances, exposure through social media, etc). Therefore, content creators prefer to be paid by a lump sum payment, rather than product or commission.
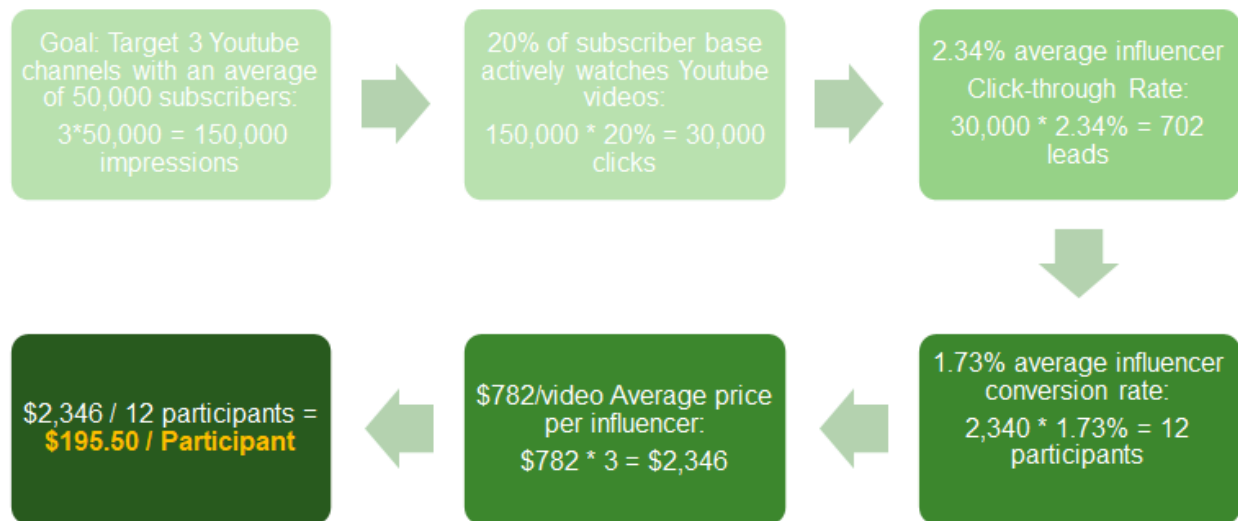
To help measure the effectiveness of the promotion, we recommend issuing content creators with their own unique custom link, which redirects to a landing page on the OSE website (information on how to implement this can be found in the auxiliary recommendations). Therefore, OSE can track the number of clicks on the specific custom link through third party analytics tools such as Google Analytics.
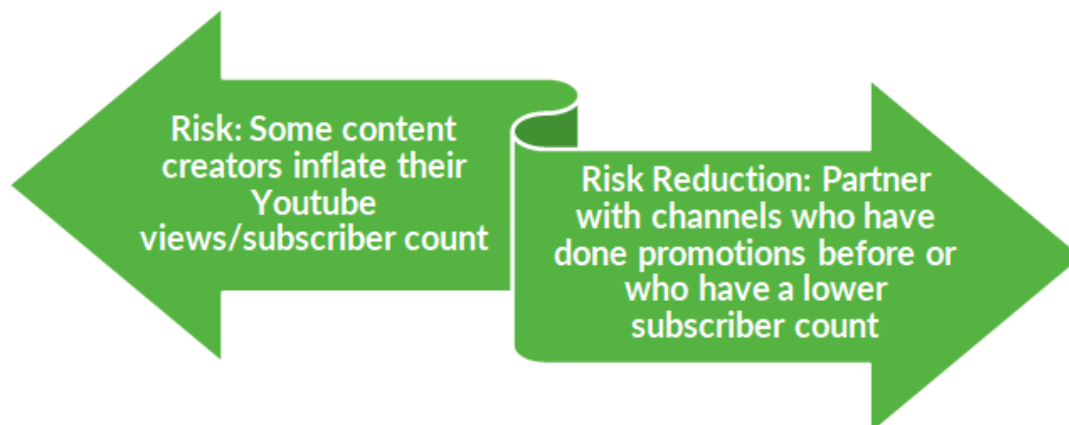
Implementation
- 1) Research potential Youtube channels to partner with. Try see if any of OSE's followers have Youtube channels.
    - o   Things to take into account...
    - o   1) Channel Content
    - o   2) Channel Audience
    - o   3) Channel Size
        - ▪   We recommend partnering with 3 Youtube channels that collectively have an average of at least 50,000 subscribers.
    - o   4) Has creator pursued a partnership/promotion before
    - o   5) How an OSE promotion can fit in with the creator's content
- 2) Contact Creator and Negotiate
    - o   Be upfront with him/her by making known goals and expectations of the promotions
    - o   Use a similar template to the podcast contact template, but also explain how you think OSE appeals to the creator's audience
    - o   Keep costs in mind, but keep in mind the inherent risks/costs creators take when partnering with OSE
    - o   Talk about what you envision the promotion to look like, but be flexible on how the promotion will pan out
- 3) Track Promotion
    - o   Different ways to track effectiveness of promotion
    - o   1) Custom Link
        - ▪   Provide creator with a custom link that redirects OSE's website
        - ▪   [Steps to implement this](#)
    - o   2) Video Views
    - o   3) Video Saves
    - o   4) Video Shares
    - o   5) Custom Discount Codes - Can count conversions every time someone uses the code to make a transaction

Return on Implementation:

Goal: Target 3 Youtube channels with an average of 50,000 subscribers:
3*50,000 = 150,000 impressions

→

20% of subscriber base actively watches Youtube videos:
150,000 * 20% = 30,000 clicks

→

2.34% average influencer Click-through Rate:
30,000 * 2.34% = 702 leads

↓

$2,346 / 12 participants =
$195.50 / Participant

←

$782/video Average price per influencer:
$782 * 3 = $2,346

←

1.73% average influencer conversion rate:
2,340 * 1.73% = 12 participants

Risk Analysis

Risk: Some content creators inflate their Youtube views/subscriber count

Risk Reduction: Partner with channels who have done promotions before or who have a lower subscriber count

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