The “Techtivism” Fellowship

Powered by The Knowledge House in partnership with THE POINT Community Development Corporation
How to use this tool

Facilitators can modify the syllabus sequence, specific social good issues, program events, and scope of final projects. Groups may choose to teach the tech-entrepreneurial skills through other lenses such as music, video gaming, hip hop, as long as topics are relevant to the learner.

Facilitators are encouraged to stay loyal to the creation of tech products or projects that address a community problem or user need. Final projects should be assessed on their technical functionality as well as their validity as something that addresses market needs and has potential to be monetized. Projects should be presented at a final showcase event such as a startup competition, maker faire, hackathon, etc.

Please use the Facilitator’s Guide along with the lesson slides.
The ultimate **goal** of Techtivism is to empower young people to make a product that addresses a real problem. Making this product will advance technical skill, and learning how to improve it for others will provide leadership and entrepreneurial skills. To evaluate the success of Techtivism, assess the validity and functionality of all final projects (tech-product, start-up, or digital media/design campaign) using the TKH Project Rubric.
Skills

Technical skills:

➔ Visualizing data and internet research
➔ Lean startup methodology and business canvas
➔ Ideation, user empathy, and iteration strategies
➔ Digital marketing and social media management
➔ Videography and digital storytelling
➔ 3D modeling/printing
➔ HTML/CSS/Javascript
➔ Web design via Wordpress

Social, Emotional Skills:

➔ Self-efficacy
➔ Goal-setting
➔ Interpersonal Skills
➔ Teamwork and collaboration
➔ Public speaking
➔ Networking
➔ Community leadership/pro-social purpose
➔ Empathy
➔ Optimism
➔ Problem-solving
UNIT 1: Business Conceptualization

The following unit outlines the basic concepts behind business creation and development - from problem validation, ideation, to financing, to marketing in a way that is lean and bootstrap oriented.
How do businesses make money?

- **Get paid** to create value added services or products

- **Get paid/donations** to connect resources to those who need them

- Patent a process or product to **Get paid** when others use it

- Copyright intellectual property to **Get paid** when others use it
Competitive Market Analysis

**Market Value** how many potential customers and which are average users vs. extreme users?

**Market Summary** user pain points (the problem) and needs (demand)

**Competitive landscape** existing solutions and their differences and similarities (supply)

**Competitive Advantage** understanding your point of differentiation

**User Experience (UX)** using empathy to focus on serving your users’ satisfaction
## Lean Business Canvas

<table>
<thead>
<tr>
<th><strong>Problem</strong></th>
<th><strong>Solution</strong></th>
<th><strong>UVP</strong>: Unique Value Proposition</th>
<th><strong>UA</strong>: Unfair Advantage</th>
<th><strong>CS</strong>: Customer Segments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 3 problems</td>
<td>Top 3 features</td>
<td>Single, clear, compelling message that states why you are different and worth buying</td>
<td>Can't be easily copied or bought</td>
<td>Target customers</td>
</tr>
<tr>
<td><strong>KA</strong>: Key Activity</td>
<td></td>
<td>Activity that drives retention/revenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CHannels</strong>: Path to customers</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>C$$</strong>: Cost Structure</th>
<th><strong>R$$</strong>: Revenue Streams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Acquisition Costs</td>
<td>Revenue Model</td>
</tr>
<tr>
<td>Distribution Costs</td>
<td>Life Time Value</td>
</tr>
<tr>
<td>Hosting</td>
<td>Revenue</td>
</tr>
<tr>
<td>People, etc.</td>
<td>Gross Margin</td>
</tr>
</tbody>
</table>
Unit 2: Design & Digital Media

Learn the basics of creating digital media to be able to market your product. At the early stage, simple logo designs, choosing the right website theme, and creating an easy video are valuable when getting your product off the ground.

It’s easy to make a video these days and you will need one for a Kickstarter campaign, a user testimonial, or commercial. In addition to marketing your product, use videos, photographs and info graphics to tell the story of the people your product is helping. Share their stories, pain points and wins.
Shots and Framing | *What the audience sees*

- **ESTABLISHING SHOT**
- **MEDIUM SHOT**
- **CU**
- **ECU OR INSERT SHOTS**
Shot and Frame | Rule of Thirds and *MisEnScene*
Camera Angles and Movement *What the filmmaker is doing?*

low vs. high angle
Unit 3: Product Development

Put emphasis on the fact that a project/product should be more than just that, it needs to be a package, something entirely enveloping and branded.

Also emphasize that this is the hard part, but most rewarding ;)}
The Internet Has Changed How We Live

Finding What We Need
- Amazon
- eBay
- Craigslist

Sharing Our Lives
- Twitter
- Facebook
- Instagram
- Vine

Gaining Knowledge
- Khan Academy
- Wikipedia

Consuming Media
- YouTube
- Netflix
- Apple

Sharing Our Creations
- GitHub
- Soundcloud
- Vimeo
- Squarespace

Getting Things Done
- Dropbox
- Trello
- Gmail
The Evolution of Web Technology: HTML

HTML creates tags which act as instructions for displaying content over the web.

HTML allowed for the creation of simple linked pages allowing anyone with a connection to share content with the world.
CSS Brings Style to the Web

Designers tired of grayscale menus and preset fonts began to develop new tools to take Webpages and make them stylish, colorful, and clean.
JavaScript was created in 1996 by Netscape (the original web browser) to allow for web scripting, or running a program on a website's server that reacts to user action.

This creates web pages that change and react based on the actions of the user.
Technologies Behind Web 2.0

Front End
- AngularJS by Google
- Bootstrap
- pixi.js
- HTML5

Back End
- Django
- Flask
- Ruby on Rails
- Node.js
- CodeIgniter

Databases
- MySQL
- MongoDB
Front End Frameworks

Bootstrap / Foundation

AngularJS | Pixie JS

HTML 5

Features: UX/UI, User Interactivity, Animation and Graphics
Underlying Tech: HTML, CSS, JavaScript / JQuery
Server Side Frameworks

This is where the website’s functionality lives.

Python
- Django
- Flask

Ruby
- Rails
- Sinatra

PhP
- Code Igniter

JavaScript
- Node.js

Data organization, and transformation
File storage and retrieval
URL mapping and template generation
UNIT 4: Digital Marketing

Now that there is a clear understanding for what the technology behind the modern web experience is, students are given hand on experience designing or developing sites either thru html or utilizing a cms.
4 Simple Steps to Market

Step 1: Identify Your Perfect Customer

Step 2: Start A Conversation & Collect Information

Step 3: Create a Sales & Retention Funnel

Step 4: Scale Your Business
Creating a Social Media Strategy

<table>
<thead>
<tr>
<th>What to Publish</th>
<th>When to Publish</th>
<th>How to Publish</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 – 4 Subjects/Topics Relevant to your Brand</td>
<td>Available Content vs. What Needs to be Developed</td>
<td>Determine When Your Audience Wants to Hear From You</td>
</tr>
<tr>
<td>Content You Can Regularly Curate</td>
<td>Trial, Error &amp; Optimization</td>
<td>Details &amp; Mechanics</td>
</tr>
<tr>
<td></td>
<td>Tracking Engagement: Audience Reach vs. Audience Engagement</td>
<td>Process &amp; Organization</td>
</tr>
</tbody>
</table>
Guidelines

- Have a Plan
- Keep Content Up-to-Date
- Be Authentic
- Be Appropriate
- Provide Links
- Be Consistent
- Monitor Comments
- Respect Privacy
- Follow Copyright Laws
Now, Let’s Build

Thank you to all content partners who contributed to TKH’s programming and the lessons in Techtivism. Shout out to THE POINT, GrantAnswers, Bronx Digital Meetup, Mainland Media, ProMotions, Mass Ideation and Code Crew.