EDesign Lab

DESIGN BRIEF

Experience first, tools second.

Hackathon

Downloads and Important Links:
http://edesignlabs.org/hackathon/packs

Let's MAKE this!

For this hackathon, there are two tracks for you to choose from: the Grow track and Scratch track. We'll get more into these in a sec. First, for those of you who might not have a big background in learning education or those of you who haven't had too much experience designing digitally, we have a quick hit list of important points. Then we'll talk learner personas and open sourcing. Here is the agenda to kick us off:

SATURDAY: Play + Design + Code

9:30 – 10 AM	Speed Dating for the Teamless + Gif Myself Station
10AM – 10:45 AM	Welcome!+Go over weekend structure and design chal lenge briefs for Tracks
10:45 – 11:00 AM	Open Data and API Partner Presentations
11:00 – 12:15 PM	Start Hacking (Optional Side-bar Activity): Story-boarding Game
12:15 PM	Lunch!
12:45-1:30 PM	(Optional Side-bar Activity): Paper-prototyping Charette
1:30 – 6:30PM	Work Session - Hack Away
4:30 – 6:30PM	(Micro-Activity) 5 mins – Find a roving Human API: Educa tors to playtest w/ and pose pedagogical ideas.
6:30PM	Snacktime + Pitch Tips + Logistics Announcements
7:00 -9:45PM	Work Session – Hack Away

SUNDAY: Judging + Sharing + Socializing

10:30am –12:30pm (Optional): Final Hacking + Presentation Prep	
1-3PM	Pitching
3:00-3:30PM	Judging + Socializing
3:30PM	Winners Announced + Closing

Does your project...

Learning can be difficult when not designed well or for the right context. When thinking about any type of learning experience, digital or analog, it is important that it tackle and triumphly accomplish the following:

Scaffold concepts, information, and actions

Stimulate authentic Inquiry/Questioning (both student-led and teacher-led)

Facilitate reflective trying and doing (not just passive info reception)

Provide multiple forms of feedback about progress

Connect to relevance and interests for self-driven learning

Questions to consider…

TIPS FOR DESIGNING LEARNING EXPERIENCES
(or How I Learned to Stop Lecturing and Love the Interaction)

1 Do learners engage in the experience as an **individual, pairs, small groups,** and/or **large community**?

2 What different types of learner **modalities** (visual, audio, textual, symbolic, enacted/embodied) will you integrate?

3 What is the **flow of interactions** from beginning to end, when are there pauses and stops?

4 When do you give **hints**, or design so hints aren't needed?

5 How will your project **connect** and **extend** into learning and doing outside of school/class?

TECHNIQUES + MECHANICS: A Cheat Sheet

By mechanic, we mean the key interaction learners undertake to master skills and learning objectives of your concept. Here are a few pairings to inspire

Enacting / Role-playing / Simulating

MATCHING / Grouping / Organizing

Collecting / F_ll _n the Blank

Teaming / Voting / Competing

Swapping / Trading

Routing / Creating — Adventure
Your
Own

? How do we design learning for a future of computational thinkers, effective storytellers, and empathetic inventors?

Choose one of the **Challenge Briefs** below to pursue anew or to focus your project idea on a specific learning need of importance today.

Reimagine + Experiment.

Make and show what a digital learning experience could be. It might take the shape of a web app, a phone app, an interactive website, digital game, a physical interface, a kinect hack.

Computational THINKING

1 Design and build a learning experience that develops students' opportunity, motivation, and skills to synthesize, compare, and sense-make from **information** and **data patterns** in order to reason, to self-reflect, to problem-solve, to persuade, or to make decisions.

Argument-Building As STORYTELLING

2 Design and build a learning experience that develops students' opportunity, motivation, and skills to develop effective arguments about real-life/real-world controversies or stories by using **visual**, **textual**, and other **embodied forms of communication.**

Inventing As INQUIRY

3 Design and build a learning experience that develops students' opportunity, motivation, and skills to engage in hypothesizing and activating strategies for adaptive problem-solving, potentially to **invent** or **engineer** a medical, environmental, or architectural solution.

? How do we design learning for a future of computational thinkers, effective storytellers, and empathetic inventors?

Check out the issue tab and labels about bugs, enhancements, growth ideas, and visual design questions.

Open Source It.
Fork, extend, tinker with, and entreprenuerially adopt open source prototype learning applications.

All code on Github via CodeMontage
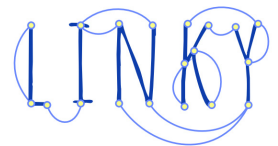
http://codemontage.com/organizations/55

LINKY

What if students could collect images from their everyday lives and connect them to concepts learned in class on a Pinterest style board?

OVERVIEW: http://edesignlabs.org/prototypes/linky/

PROTOTYPE: http://itslinky.herokuapp.com/users/login

TEAM: Abe, Alex Anna, Prikita (DC1, Fall 2012)

OVERPASS

What if learners could practice developing argument skills at their own pace in a game-like environment?

OVERVIEW: http://edesignlabs.org/prototypes/overpass/

PROTOTYPE: http://peaceful-basin-4717.herokuapp.com/

TEAM: John, Matt, Mike, Ryan (DC1, Fall 2012)

QUERYUS

What if learners could build search algorithms so that open data could be seen as a primary source like historical documents?

OVERVIEW: http://edesignlabs.org/prototypes/queryus/

PROTOTYPE: http://queryus.pagodabox.com/

INTRO: http://queryus.pagodabox.com/?start=1

CREATE: http://queryus.pagodabox.com/pick.html

TEAM: Eric, Jonah, Luke, Steve (DC1, Fall 2012)

And check out our other projects you can hack on Code Montage:

Reading Robot
An Active Reading Strategy App

EVIDENTLY
A community for the curious

LEARNER PERSONAS

REMEMBER!

You are not designing for you! Not everyone is a highly-informed early adopter. Remember what it's like to be a kid and a novice.

Codey likes playing video games...

Visualy's eyes glaze over when she looks at...

Parser thinks Mark Zuckerberg is a rockstar...

Codey likes playing video games and usually is playing under her desk instead of paying attention in class. She doesn't understand the point of the math worksheet and the series of math problems, her teacher hands out. Who cares?!? They are so random. Last week, her friend introduced her to Scratch, a web-based environment for making games. It was cool because she figured out how to accelerate the speed and number of astriods players had to shoot down to make each game level harder. It would be even cooler if...

Visualy's eyes glaze over when she looks at static data tables. She's the queen of Youtube search and twitter. It's fun to spot what's trending. She doesn't care so much about Justin Bieber's new haircut and updates, but what other better data is there to spend her time scanning and playing with?
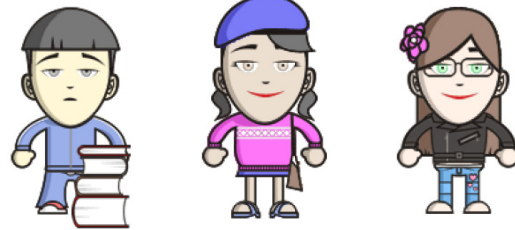
Parser thinks Mark Zuckerberg is a rockstar, but he has a better idea for what a social network could be for high schoolers. There's no programming or computer science classes at his school. He's signed up for a few online coding courses, like Code Academy, but its confusing when he gets stuck, especially when its just a syntax mistake. Most helpful is when he sees different ways peers attacked the problem. Going through the community board, sometimes he sees how other people tried to write their code blocks a different way -- sometime with lots more code, sometimes a lot less. It's hard to keep going and be persistant.

LEARNER PERSONAS

Texty's girlfriend thinks he has no attention span...

Texty's girlfriend thinks he has no attention span. He's always losing on their arguments about where to go after school, she says it's his fault for not backing up why his ideas are better. He's not looking forward to tonight, he has to write a 20 page history paper about world war ii. That happened so long ago, why is it that schools keep repeating this assignment? Remembering the dates when things happen and names of people who have died isn't gonna help me. What else are they wanting me to get out of it. Would prefer to watch Game of Thrones.
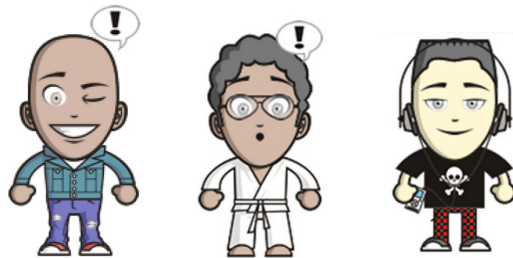
Darrel loves music and likes to talk...

Darrel loves music and likes to talk, even better. He likes to entertain. Sometimes he really just can't make it through class without commenting. He know's school is important (kind of) but nothing feels accessible to him. Accept one teacher who introduced him to improv comedy. One night last week, his older brother came home upset about a stop and frisk run-in with the police. He was so mad that he couldn't concentrate on his homework. So he dove into GarageBand and kept working on one of his new songs instead.

Harry loves the Hunger Games...

Harry loves the Hunger Games. So much that he joined a fanfiction site and started writing short stories about the characters and their backgrounds. Over spring break, him and his friend made a movie based loosely on one of his stories. In this one the kids rise up against the Capitol. This is so much more interesting than reading The Great Gatsby! He already has plans to film his next short and has even recruited 15 of his fellow students through Facebook.

LEARNER PERSONAS

Chris recently started working at a community garden...

Chris recently started working at a community garden to fulfill some community service hours he hadn't finished. He likes helping out and working with his hands. He even successfully grew a tomato plant last summer! He likes science, but doesn't really think the small experiments are fun or helpful. After a field trip to the Museum of National History for the Global Kitchen exhibit, he became really interested in window gardens. After doing some more research on where food comes from, he decided he wants to make one. Maybe even for his school. Lunch there is so gross.

Datta is searching for stuff on the internet all the time...

Datta is searching stuff on the internet all the time. She's likes to sew and recently got into conductive fabrics. Makerfaire is this coming month, and she's thinking about submitting something. She has an idea for inventing a shirt that signals when the wearer is in a very polluted area, but isn't sure where she'd get that information or how to go about getting the sensors to work.

Herminy thinks Minecraft is about the coolest thing ever...

Herminy thinks Minecraft is about the coolest thing ever. Like the best thing since Legos. She created her own server and plays with her friends all the time. Right now they are working on a mini city. Luckily, one of her friends likes making screen captures of how he builds things, so she can follow along when she can't figure it out. She likes learning new things from her friends more than from her teachers. They usually just talk at her. Yesterday, her friend posted a new video that shows how to write a program inside Minecraft to make something completely new! She's also really interested in 3-D printing after going to the NY Hall of Science. She lives pretty close to there and wants to sign up for a class in it.

Create a project home

1) Create a Github Repository

Ideally, your project will be a collaboration of individuals under an Organization, but it's also okay to get started with a single individual's repository. The most important details are that you'll be using **version control** (git), creating a **backup of your code**, and **preparing for collaboration** with other developers. View existing successful EDesign Lab projects at http://github.com/EDesign-Labs.

Make your project Helpable

1) License Collaboration

In the U.S., individuals automatically own the copyright on any words they write [2]. If you don't release your code under an open source license, it may be readable, but it's not legally usable. **You must use an open source license to enable people to help you and your project**. For help, visit http://bit.ly/OS-SLicenses [3].

2) Provide Development Setup Instructions

Assume future contributors are familiar with development, but haven't used your project's particular technologies before. Provide basic development environment setup instructions in a README.md (markdown file) in the root directory of your application, and Github will render contents automatically.

3) Share Plans, Including Next Steps and Bugs to Fix

We recommend using Github issues [4], along with custom **labels that fit your project**. As a starting point, try Github defaults of bug and enhancement, and add exploratory labels like growth idea, or skill labels like visual design. Smart labels help people find tasks and help your project more easily.

Promote your project

1) Create a Landing Page

Make sure to include your project goals, how to get started, what's happening next, and how to get in touch with your team (email list, IRC chatroom, twitter hashtag, etc.). Github hosts these for free [5].

2) Share with supporters or find collaborators.

Add to sites like Hacker League and CollabFinder, or CodeMontage if your project is focused on creating social good [6,7].

3) Announce on Social Media

We recommend Twitter because it makes sharing your project easy for others, with minimal work on your part. We also recommend using the hashtags for the hackathon event and related causes or technologies. #hackk12 @edesignlabsorg

4) Finish this hackathon!
Turn the page //---------->>

1. For more great advice, we recommend Karl Fogel's Producing Open Source Software: http://bit.ly/ProducingOSSv1.

2. For details on US Copyright Law: http://bit.ly/CopyrightFAQ.

3. For help choosing an open source software license: http://bit.ly/OSSLicenses.

4. For details on Github's next steps and bug tracking feature, Issues: http://github.com/features/projects/issues.

5. Try Github's automatic pages generator: http://bit.ly/GithubOSSPages for a free page at http://yourproject-name.github.

6. To share with software developers and social impact supporters: http://codemontage.com..

7. To share with hackathon community: http://hacker-league.org, To find collaborators: http://collabfinder.com.

SHARING + PITCHING
People want to see your hack!

First, POST IT!

1) Register at **Hacker League.** http://www.hackerleague.org (only email required)

2) Join our hackathon. https://www.hackerleague.org/hackathons/edesign-lab-hackathon (so that you can submit a project)

3) Create a project (press the button). Only 4 fields required:
- Name it!
- Give a short paragraph description (3-5 sentence), also identifying which challenge brief is addressed.
- Url where someone can view what you + your team made
- Add list of technologies, any APIs used, and **link to the Github repository**

Note: an image should auto upload from the url.

Projects must be created/posted on Hackerleague
by Saturday 9:45 PM; you can continue to hack
and make changes until Sunday noon.

Second, PITCH IT!

Have fun exchanging with each others and our judges. Sharing/reviewing starts on **Sunday at 1PM sharp**.

Ignite style, you'll have exactly **3 minutes to present**. (Slides optional 5 slides max)

What you should cover:
- Who's it for? (age/ type of learner)
- Which challenge brief it addresses?
- Quick demo/walk through of key awesome learning points of the experience and interaction design elements.

Have fun!