DukeEngage 2021: MedHealth

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Who is MedHealth?

- Regional collaboration led by Stacey Frankovich (Program Manager, MedHealth at TechTown) and Paul Riser (Director, Detroit Urban Solutions at TechTown)
- Focused on convening, connecting, and educating the medical innovation ecosystem in Southeast Michigan and Southwest Ontario
- Driven by a steering committee composed of healthcare providers, universities, investors, and innovators
- THE GOAL: Accelerate the adoption of technologies that improve the quality of care and contribute to economic growth in the region

The Initial Task

Facilitate a transfer between Clique to Zoho client relation manager (CRM) by:

- Researching historical documents and background on MedHealth
- 2. Research and learn about the Clique and Zoho platforms
 - 3. Prepare client information for transfer
 - 4. Conducting exports of data and preparing the data for upload into the new system

The Deliverables:

Client Master-List Connections Intake Form User Stories

Client Master-List

Description:

- Export all 1700+ data points from Clique and MailChimp
- 2. Merge and Clean data
- Find any instances of misnamed companies and unformely name them
- 4. Find websites for all the companies

+ Connections

Go through the notes of all the clients and create a spreadsheet with who Stacey connected to who

"What we did"

Description:

Instead of manually siphoning through thousands of data points

We implemented code!

And of course hand checked all our work

```
In [6]: for i in list items:
             c base[i] = np.nan
In [7]: c base = c base.fillna("RemoveLater")
         for i in c base.index:
             items = c base.iloc[i]["Lists"].split(",")
             for k in items:
                 c base.at[i, k] = "X"
 In [8]: c base = c base.replace("RemoveLater", np.nan)
 In [9]: #company = c base.groupby("Company")
         #import Levenshtein as lev
         from fuzzywuzzy import fuzz
         companies = []
         [companies.append(x) for x in c base["Company"] if x not in companies]
         companies.remove(np.nan)
         companies.sort()
         #company list = company list.dropna()
In [10]:
         similiar = set()
         c base["companies fixed"] = [i for i in c base["Company"]]
         for i in range(len(companies)):
             for k in companies[i+1:]:
                 Str1 = companies[i]
                 Ratio = fuzz.ratio(Str1.Str2)
                 #Partial Ratio = fuzz.partial ratio(Str1,Str2)
                 #Token Sort Ratio = fuzz.token sort ratio(Str1.Str2)
                 #Token Set Ratio = fuzz.token set ratio(Str1,Str2)
                 if Ratio > 68 and Ratio < 100: #or Partial Ratio > 40:
                     similiar.add(companies[i])
                     temp = c_base[c_base["Company"]== k].index.values
                     for i in temp:
                         c base.at[j, "companies fixed"] = companies[i]
```

Intake Form

Description:

- A new intake form would allow relevant information to be directly recorded in Zoho and help Stacey prepare for initial meetings
- Key Information: Raised money? Company stage? Resources have they utilized?



MedHealth Intake

Preliminary Assessment

What type of	f technology	is your	innovation?
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Medical Device <Checkbox>

Digital Solution <Checkbox>

Who will you likely sell this technology or service to??

Health System <Checkbox>

Direct to Consumer <Checkbox>

3rd party distributor <Checkbox>

Unknown <Checkbox>

Other <Text Box>

Who is the user of your technology or service?

Clinician <Checkbox>

Patient <Checkbox>

Administration <Checkbox>

Caregiver / Family <Checkbox>

Other <Text Box>

1) What problem does your technology or service solve?

A) How does your product or service directly address the problem?

B) What are the key benefits of your product or service?

2) Who are your competitors?	

User Stories

Description: Describe how MedHealth would to interact with a specific user in order to identify the different functionalities they need from Zoho

	Α	В	С	D	E	F		
1		MedHealth Zoho Migration User Stories						
2		As a [description of user]		I want [a functionality]		So that [a benefit or outcome happens]		
3	As a	MedHealth Program Manager	I want	capture referrals from the ecosystem	so that	we can report out on connections made		
4	As a		I want		so that			
5	As a	MedHealth Program Manager	I want	to know the type of company Digital or Device	so that	I can better assist them with the right resources.		
6	As a	MedHealth Program Manager	I want	to know the sector their technology serves (such as cardio, ortho, sensors or monitoring)	so that	I can sort by sector when health systems requests specific solutions.		
7	As a	MedHealth Program Manager	I want	Funding to date (use INVESTMENTS as term)	so that	I can create a baseline for the company to track additional funding		
8	As a	MedHealth Program Manager	I want	New funding reported	so that	I can document new money in for EDA		
9	As a	MedHealth Program Manager	I want	Number of employees	so that	I can create a baseline for the company to track additional jobs created		
10	As a	MedHealth Program Manager	I want	New employees	so that	Track jobs created for EDA		
11	As a	MedHealth Program Manager	I want	To know where (country) there solution is located	so that	I can demonstrate what countries are interacting with MedHealth and direct them to the right resources		
	As a	MedHealth Program Manager	I want	Company stage	so that	determine the right resources		

The Challenge:

- How could we make ourselves useful to MedHealth given that the Zoho team didn't need more assistance?
 - We overcame this challenge through communication and collaboration with Stacey and personal initiative
 - We set aside time in during our weekly check-in to articulate our goals for the summer and propose our own project ideas
- Around this time MedHealth received a BIG grant from the Economic Development Association (EDA)...

EDA Grant Details

- Goal of the investment: build on existing efforts to enhance and scale MedHealth
- EDA support will assist in revitalizing the region's economy through the COVID-10 crisis
- It is estimated that this project will create and retain at least 110 jobs and leverage \$25 million in private investment
- Main projects include: Improving a commercialization Pathfinder, developing a new collaboration platform, designing med-tech events, and expanding MedHealth's regional presence

...The EDA grant lead to new individual projects based on MedHealth's needs and our personal areas of interest

Neal's Projects

The Collaboration Platform

Finding Inspiration

- Research
 - Finding similar platforms
- How did they do it?
- Where did they go wrong?
- What insights do their ideas bring?

Reaching Out



Isabel's Project (1): EDA Grant Summaries

- Stacey Requested high-level summaries of the procurement process and request for proposal (RFP) process
- As a recipient of a Federal grant, MedHealth has agreed that all procurement transactions will be in accordance with the Uniform Administrative Requirements
 - Background on general procurement standards and methods of procurement
 - Different methods of procurement
- The RFP is a project announcement to be posted publicly by MedHealth indicating that bids for contractors to build the website are being sought
 - Goals/requirements for RFP
 - Potential RFP outline and examples
 - Essential questions for contractors

Isabel's Project (1): EDA Grant Summaries

To: Stacey Frankovich From: Isabel Hogshire (DukeEngage Fellow) Subject: Procurement Process Resources Date: June 22, 2021

Executive Summary:

As a recipient of a Federal grant, MedHealth has agreed that all procurement transactions will be in accordance with the Uniform Administrative Requirements 2 C.F.R §§ 200.317 through 200.327. This memo provides a high-level summary of these requirements as well as resources to better understand this process.

Background on General Procurement Standards

- The Code of Federal Relations (C.F.R.) provides general procurement standards that apply to
- . MedHealth must only award contracts to entities that are able to comply with these standards.
- . C.F.R. also emphasizes the importance of avoiding conflicts of interest.
- · MedHealth must provide full and open competition for potential contractors and have written procedures for procurement transactions

Methods of Procurement

- C.F.R. breaks down procurement methods into three categories; informal procurement, formal procurement, and non-competitive procurement.
- Informal procurement: When the value of the procurement for property or services under a Federal award does not exceed the simplified acquisition threshold (SAT) of \$250,000.
 - Micro-purchases, Small purchases under \$10,000
- · Formal procurement: When the value of the procurement for property or services under a Federal award exceeds the SAT, formal procurement methods are required.
 - Sealed bids, Proposals (RPF)
- · Non-competitive procurement: There are specific circumstances in which non-competitive procurement can be used.
 - o The dollar amount does not exceed the micro-purchase threshold (determined and documented by MedHealth; may be increased up to \$50,000 in accordance with Federal Acquisition Regulations (FAR))
 - o The item is only available from a single source
 - o Public emergency/exigency
 - MedHealth writes a specific request and receives approval from the federal awarding
 - o Competition is determined inadequate after evaluating a number of sources
- MedHealth must take all necessary affirmative steps to assure that minority business enterprises. women's business enterprises, and labor surplus area firms are used when possible.
- · MedHealth should preference domestic procurements

To: Stacev Frankovich

From: Isabel Hogshire (DukeEngage Fellow) Subject: Request For Proposal (RFP) for Website Build

Date: June 22, 2021

Executive Summary

- . The RFP is a project announcement to be posted publicly by MedHealth indicating that bids for contractors to build the website are being sought
- . The RFP will define the project for MedHealth as well as respondents
- . The RFP will describe the project, its objectives, MedHealth as an organization, as well as the bidding process and contract terms
- The goal of the RFP is to establish a partnership with a potential website creator; RFP must provide a detailed context to understand MedHealth's needs

Background Information

- · Issuing an RFP may require a number of sub-contractors
 - Consultant: Responsible for understanding MedHealth's needs and articulating those needs within the RFP; responsible for selecting qualified vendors
 - Procurement Professional: Coordinates the creation of the RFP; monitors progress

Gathering RFP Requirements

- Articulate the project's purpose: Collect information from stakeholders (health systems, innovators, private sector) about the need MedHealth is addressing
- · Establish clear goals: What would a successful outcome look like?
- Determine evaluation criteria: How will you score proposals? What are the most important factors to consider?

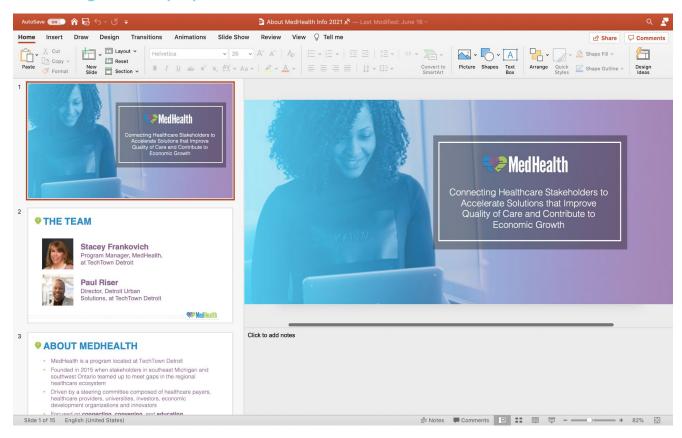
Potential RFP Outline and Examples

- 1. Project Summary and Goals
- 2. Company Information
 - a. About Information
 - b. Competitors
- 3. Website Audience
 - a. Types of Users
- 4. Site Structure and Content
- 5. Graphic Design
- 6. Functionality
- 7. Budget (hosting and maintenance)
- 8. Vendor Selection Process and Criteria

https://www.energystar.gov/ia/partners/bldrs lenders raters/downloads/Enterprise Rater RFP Te

https://www.techsoup.org/SiteCollectionDocuments/sample-rfp-web-building-document.pdf

Isabel's Project (2): Communications Materials



Isabel's Project (3): MedTech Asset Map

	А	В	С	D	Е	F
1	Name	Org. Type	Website	Description	Location	MedTech Specif
2	MedHealth	Regional Collabo	https://medhealthinnovation.org/	MedHealth convenes innovato	Detroit, MI	X
3	TechTown Detroit	Entrepreneurshi	https://techtowndetroit.org/	Helps both tech and neighborh	Detroit, MI	
4	The Underground	Incubator Progra	https://www.startunderground.com/		Port Huron, MI	
5	XLelerate Health	Accelerator	https://www.xleratehealth.com	Supporting XLerateHealth is a	Flint, MI	X
6	Michigan Life Science and Innovation Center	Entrepreneurshi	https://mlsic.com/	The Michigan Life Science and	Plymouth, MI	X
7	Midwest Regional U.S. Patent & Trademark Office		http://uspto.gov/detroit	Provides general information of	Detroit, MI	
8	Entreprenuers Hub	Lab Space	http://entrepreneurshub.space	Co-working space offering an a	Detroit, MI	
9	Detroit Health Department	Gov. Agency	http://detroitmi.gov/health	Provides public health services	Detroit, MI	
10	Grand Circus	Accelerator	http://grandcircus.co	Provides 10-week coding boot	Detroit, MI	
11	Endeavor Detroit	Accelerator	http://endeavordetroit.org	Helps high-impact entrepreneu	Detroit, MI	
12	Invest Michigan	Funding	http://investmichigan.org	Funding for innovative, early s	Detroit, MI	
13	Goldman Sachs 10,000 Small Businesses	Entrepreneurshi	http://10ksbdetroit.com	A program that coaches entreg	Detroit, MI	
14	Detroit Score	Entrepreneurshi	http://detroit.score.org	Provides business tools and te	Detroit, MI	
15	ACCESS Growth Center		http://accessgrowthcenter.org	Provides business training, but	Dearborn, MI	
16	Michigan Manufacturing Technology Center		http://mmtc.org	Operational assessments, pro-	Plymouth, MI	
17	WMed Innovation Center	Incubator and C	https://med.wmich.edu/node/373	The WMed Innovation Center	Kalamazoo, MI	X
18	Michigan Biomedical Venture Fund	Funding	https://cfe.umich.edu/mbvf/	The Michigan Biomedical Vent	Ann Arbor, MI	X
19	Start Garden	Accelerator and	http://startgarden.com/	Start Garden empowers West	Grand Rapids, M	И
20	Michigan Economic Development Corporation	Economic Devel	https://www.michiganbusiness.org/	The Michigan Economic Devel	Lansing, MI	
21	Central Michigan University Research Corporation	Accelerator	https://www.cmurc.com	CMURC is a nonprofit organiza	Mount Pleasant	, MI
22	Detroit Economic Growth Corporation	Economic Devel	http://degc.org	Detroit's leading economic dev	Detroit, MI	
23	Opportunity Resource Fund	Funding	http://oppfund.org	Provides loans and technical s	Detroit, MI	
24	Detroit Development Fund	Funding	http://detroitdevelopmentfund.com	Provides capital and technical	Detroit, MI	
25	BUILD Institute	Entrepreneurshi	http://buildinstitute.org	Business planning classes, ad	Detroit, MI	
26	U.S. Small Business Administration	Economic Devel	http://sba.gov/mi	Provides counseling, training,	Detroit, MI	
27	Michigan Medical Device Accelerator	Accelerator	https://mmdaccelerator.com/	MMDA provides an opportunity	Kalamazoo, MI	X
28	OLLING	Accelerator	https://www.oakland.edu/ouinc/	OLLINC is a SmartZone Busin	Rochester MI	

Key Takeaways

- Given that MedHealth is comprised of such a small team, our work made a tangible impact
- Although our projects might seem disconnected from one another, they
 they serve a common purpose: helping to accelerating MedHealth into a
 new age of efficiency and reach
- Personal Takeaways:
- THANK YOU STACEY!