



# Team 72:

## *Weill Transformers*



Michael Chan

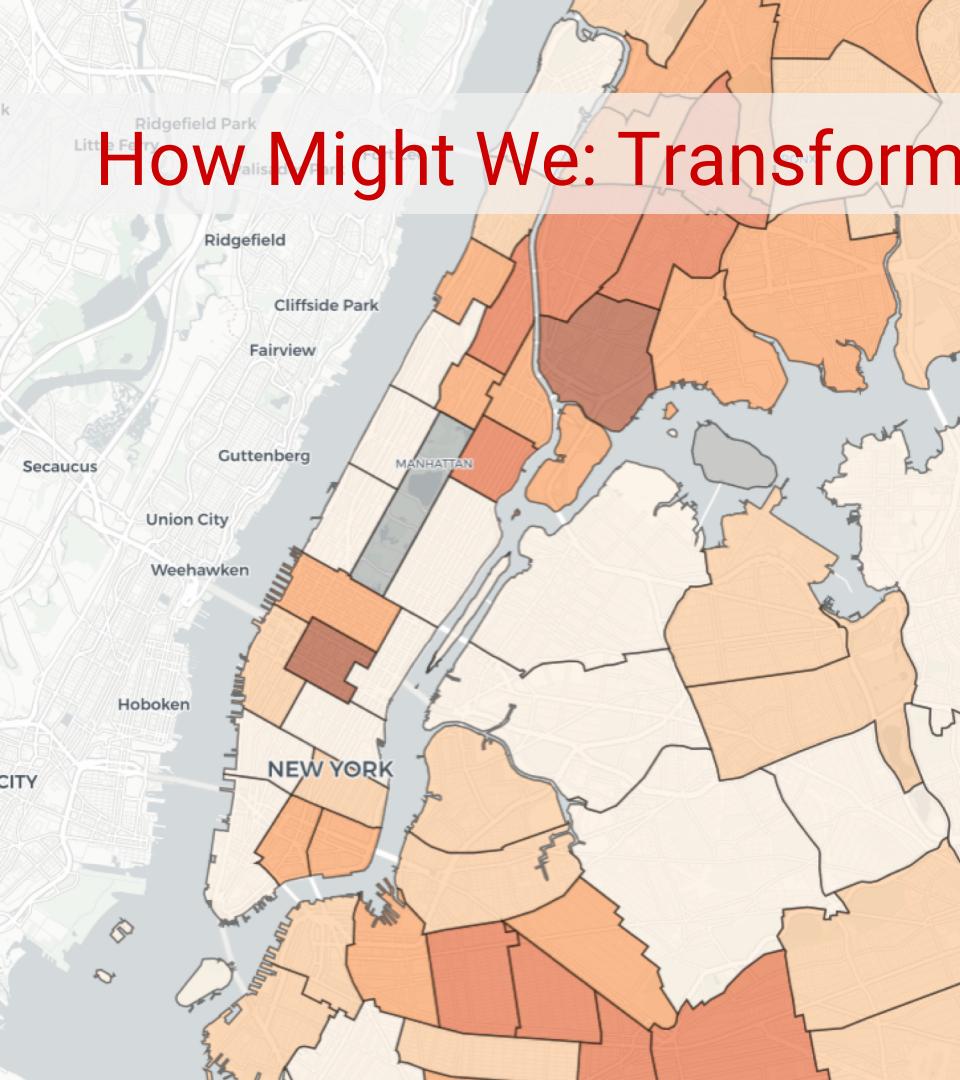
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# How Might We: Transform Medical Training?



**Company:**  
**Weill Cornell**  
**New York**  
**Presbyterian**



# MSight



# Risk-Mitigating Sequence

## Integration



## User Interface



## Training Needs



## User Engagement



Prototype  
A/B Testing

Primary Data

Secondary Data



# Experiment 1: Value of Data in Determining Training Needs

- A. Adult Medical Resuscitation
- B. Adult Trauma Resuscitation
- C. Cardiac Pacing
- D. Central Venous Access
- E. Chest Tubes
- F. Cricothyrotomy
- G. Dislocation Reduction
- H. ED Bedside Ultrasound
- I. Intubations
- J. Lumbar Puncture
- ...



- 1. ....
- 2. ....
- 3. ....
- 4. ....
- 5. ....
- 6. ....
- 7. ....

- 1. ....
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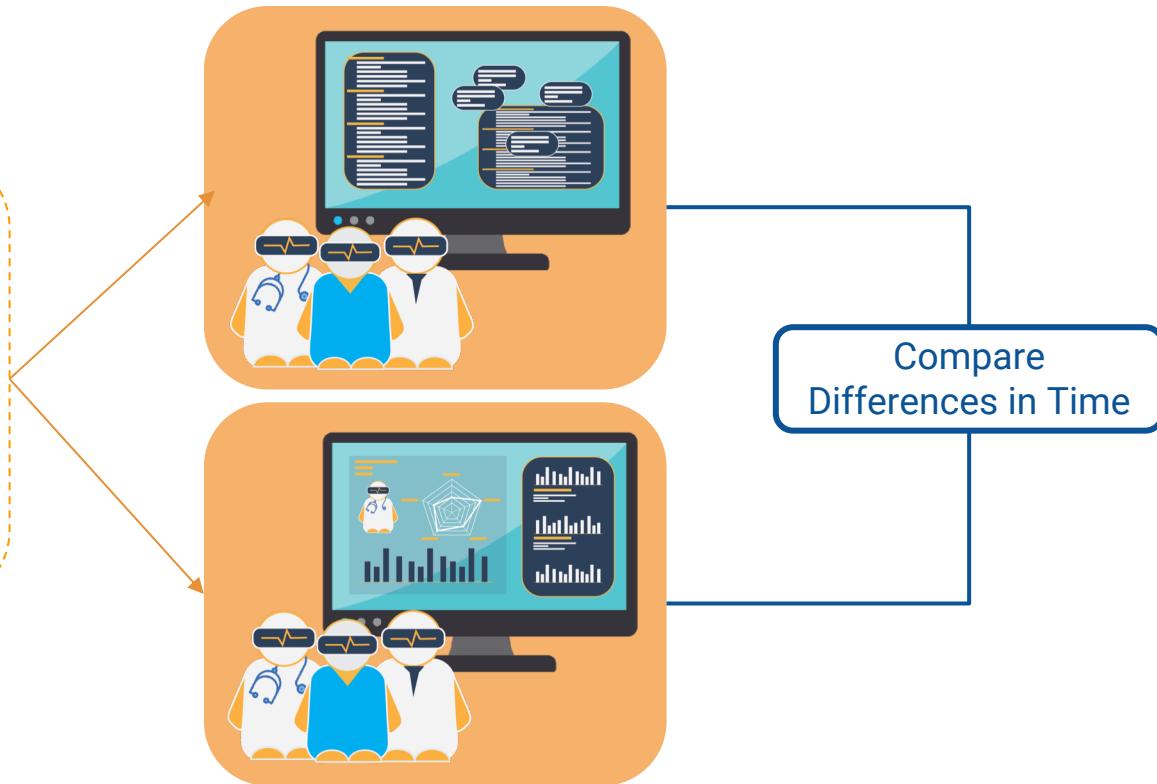
Compare Differences



# Experiment 2: User-Friendly Interface

## Tasks

1. Find credentials for...
2. How many...
3. Select the physician...
4. Would this physician...
5. How could he/she...
6. Find requirements...
7. What are the strength...





# Thank You!



-Team72 & Weilly



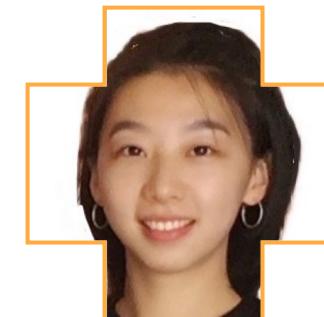
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# Appendix

Key Risk	Uncertainty	Importance	Risk Factor	Risk Mitigating Task	Cost of Task (1-3)	Risk factor/ Mitigation Ratio	Notes	Objective of Experiment	Experiment Type	Experiment Description	Treatment	Sample	Key Metrics	Threshold of Success
How easily/difficult is it to integrate this product into existing systems? Do hospitals have APIs to source information from?	3	3		Research/ask an expert in the hospital who knows the infrastructure (Joel Park, IT Department)	1		9 Instant	Maybe experiment later, dependent on how much information (credentials, etc.) we can use to experiment						
	3	3		Research/ask an expert in the hospital who knows the infrastructure	1		9 Instant	N/A						
				Ask an expert/data science on what metric to use, collect anecdotal data, identify high-risk low frequency procedures						We split med.prof. into two groups, one will anecdotally assess what training they need based on the happenings of the previous week, the other will use data (recording each case type in the past week), each group will rank a list of 10 procedures according to training necessity				
How do we identify training needs?	3	3		9 procedures	2		4.5	How will increase access to data influence their decision on which training they need?	Pilot		Treatment vs controlled 3 times		Differences in conclusion	If there is a difference in the rankings of training
How user-friendly will the interface be?	3	3		Experiment with different visualization methods and record reaction (AB Testing)	3		3 1 week	How well can they navigate the user interface?	Pilot		Two treatment groups on two separate interface		Failure Attempts Time to achieve task 10 Observation	Least amount of failure attempts
To what extent are the hospitals comfortable with sharing data?	2	3		Research/ask an expert, experiment with gauging willingness to share data by testing them, existing software/third-party software usage	2		3	N/A						
How frequent will users engage with the product?	3	2		Test by setting up a website and see if med. professionals will click	2		3 2-4 hours	Will/How often will they click on a website that visualize their stats/credentials?	Prototype		50 TBD by how many people Jonathan sends		Clicks How many gave us their email	50 % click rate, 10% email rate
What customizations (data display, integration) will the hospitals require?	3	2		Interview professionals to determine which features/data they want to see	2		3	N/A (We could try showing them our product for Well/NYP)						
What are the different data structures that hospitals use?	3	2		Ask data science expert (Joel Park), make a dummy set	2		3 keep it simple	N/A						
What is the best method/diagrams to visualize the data?	3	2		AB Testing, record their preference/engagement time/clicks... Make a prototype on different platforms and test user engagement	3		2 multiple iterations	What is the best method to visualize data that shortens comprehension time?	Prototype		We will create 3 different visuals for the same data, show it to medical professionals, ask them to explain the data presented to them	A/B Testing	time comprehension 10 Accuracy	100% accuracy, shortest average time
What is the best platform for the user interface (desktop, website, app, mobile)?	2	2		Dependent on how often they have access to computers/mobile on their shift	2		2 2-3 days	N/A						
How secure will the data be?	1	3		Hire a white hat hacker to test security	3		1\$\$\$\$							
Will increased visibility of data negatively impact professional image/morale?	2	1		Test nurse's trust for physicians by showing a fake physician profile	2		1							

