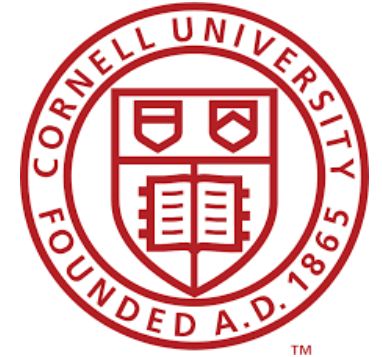


USER JOURNEY MAPPING:

A USER-PRODUCT INTERACTION METHOD TO EVALUATE AND INFORM
SOLUTIONS TO IMPROVE MEDICATION ADHERENCE FOR OLDER ADULTS
WITH DEMENTIA

EDRA53: HEALTH IN ALL DESIGN

ANNE J. CRAMER, MS CANDIDATE, HUMAN ENVIRONMENT RELATIONS



ADVISOR: DR. RANA ZADEH

Grant support by:



Sue Baker Safety by Design initiative

PIs: Zadeh, R., Reid, C., Szaja, S., Shields, W., Wethington, E., Capezuti, E.

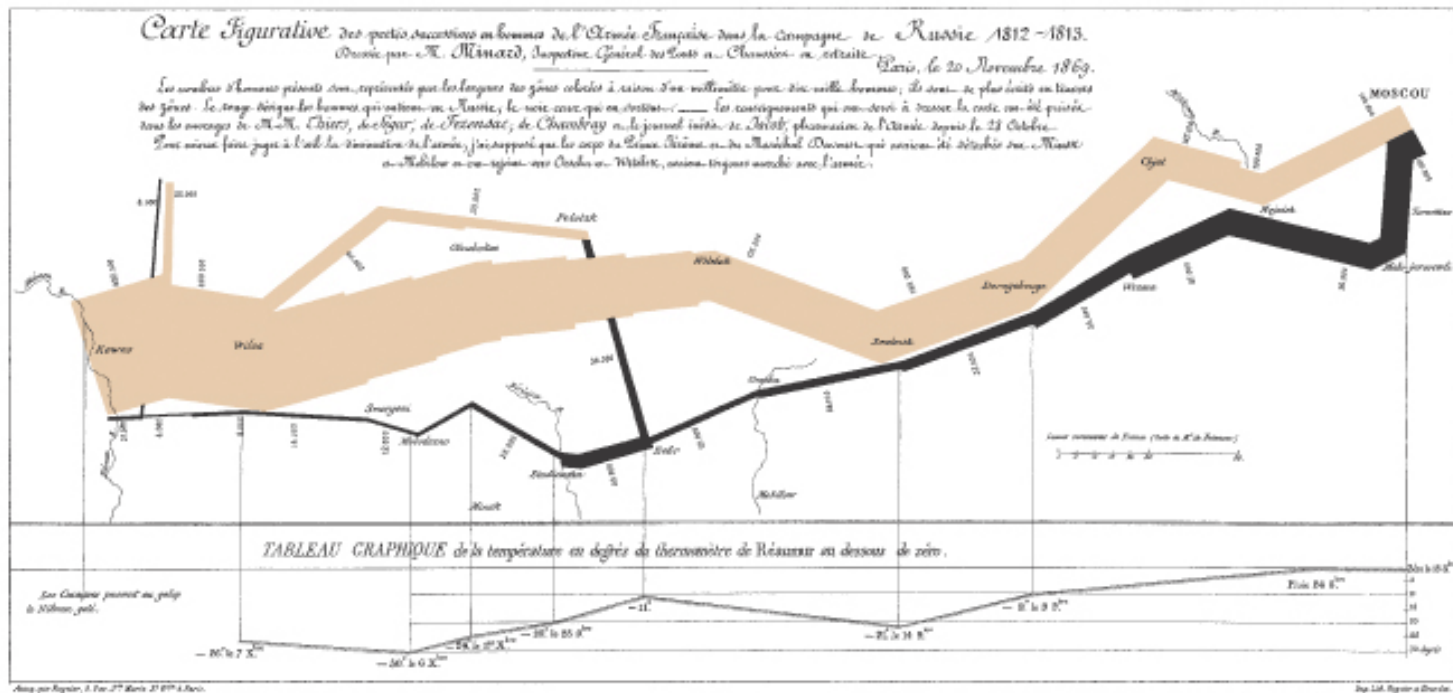
INTRODUCTION

- Medication adherence is critical to quality of life for older adults
- For those with dementia, mistakes such as overdosing or forgetting to take medication can lead to:
 - Unintentional negative clinical outcomes
 - Rising costs of healthcare utilization
- A common approach for caregivers is to find a device or system to help their loved ones manage their medications
- The user experience in searching, reviewing, selecting, and using such devices is complex
- User journey mapping is a visual representation of the alignment of products to user needs to create relevant, engaging and rewarding experiences

Medication misuse, abuse, and diversion:

- Compliance rates range roughly from 38%- 57% with an average rate of less than 45%.
- 40-60% of patients could not correctly report what their physicians expected of them 10-80 minutes after they were provided with the information
- Over 60% of patients interviewed immediately after visiting their doctors misunderstood the directions regarding prescribed medications.





Napoleon's March to Moscow The War of 1812

Charles-Joseph Minard

This classic of Charles Joseph Minard (1781-1870), the French engineer, shows the terrible fate of Napoleon's army in Russia. Described by E. J. Macey as seeming to defy the pen of the historian by its brutal eloquence, this combination of data map and time-series, drawn in 1869, portrays the devastating losses suffered in Napoleon's Russian campaign of 1812. Beginning at the left on the Polish-Russian border near the Niemen River, the thick band shows the size of the army (422,000 men) as it invaded Russia in June 1812. The width of the band indicates the size of the army at each place on the map. In September, the army reached Moscow, which was by then sacked and deserted, with 100,000 men. The path of Napoleon's retreat from Moscow is depicted by the darker, lower band, which is linked to a temperature

scale and dates at the bottom of the chart. It was a bitterly cold winter, and many froze on the march out of Russia. As the graphic shows, the crossing of the Berezina River was a disaster, and the army finally struggled back into Poland with only 10,000 men remaining. Also shown are the movements of auxiliary troops, as they sought to protect the rear and the flank of the advancing army. Minard's graphic tells a rich, coherent story with its multivariate data, far more enlightening than just a single number bouncing along over time. Six variables are plotted: the size of the army, its location on a two-dimensional surface, direction of the army's movement, and temperature on various dates during the retreat from Moscow. It may well be the best statistical graphic ever drawn.

Edward R. Tufte, *The Visual Display of Quantitative Information* Graphics Press Box 410 Cheshire, Connecticut 06410

EXPERIENCE VISUALIZATION: NAPOLEON'S MARCH TO (AND FROM) MOSCOW

METHOD: USER JOURNEY MAPPING

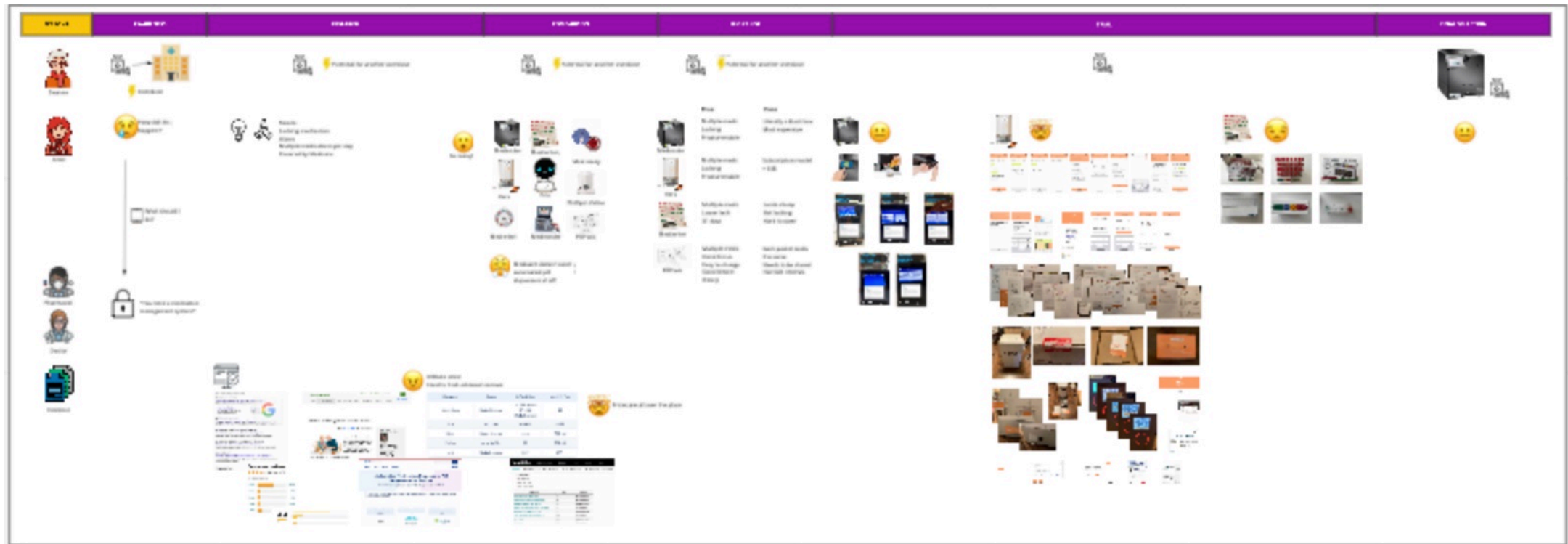
■ User Journey Mapping is representative of:

- Where the user touches the product
- Where the product touches the user
- How they interact with each other
- The multiple interaction points of a user's engagement with the product/company/organization
- Why the user is seeking interaction with the product/company/organization
- The user expectations, needs, and perceptions of their experience with the product

■ Common Terminology

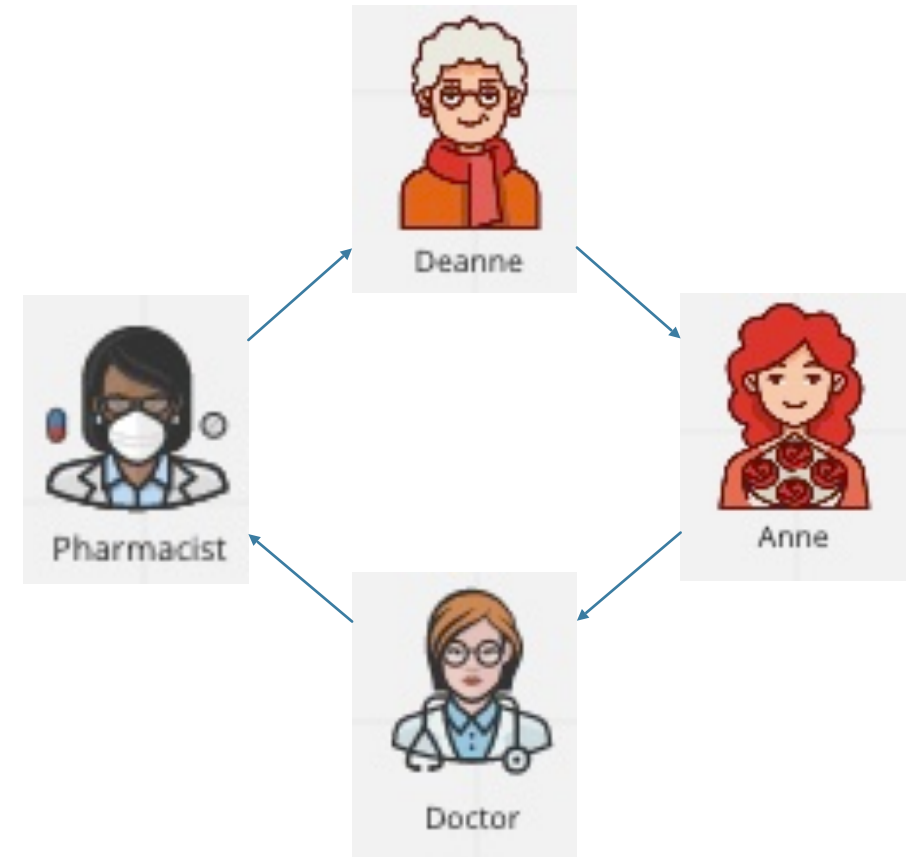
- **Touchpoints**: This is the moment where process, systems, data or emotions intersect. This is often the 'fault line' between the product and the user
- **Moments of Truth**: This is a key moment to enabling an action or getting a result and is often an emotional point where the user decides to stay or go
- **Interactions**: The activities in which customers engage. Any business supports dozens, if not hundreds of interactions.
- **Experiences**: The sum of what the user takes away from the interactions and touchpoints they've had with you. An event, with a beginning, middle, and end. Users always have an experience (good, bad, or indifferent)

DISCUSSION: USER JOURNEY MAP



CONCLUSION: THE NEED FOR SYSTEMS APPROACH TO MEDICATION ADHERENCE

- Enlisting all stakeholders:
- Understanding costs of intervention
 - Education
 - Technology
 - Support Network
- What are the costs of doing nothing?





THANK YOU

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