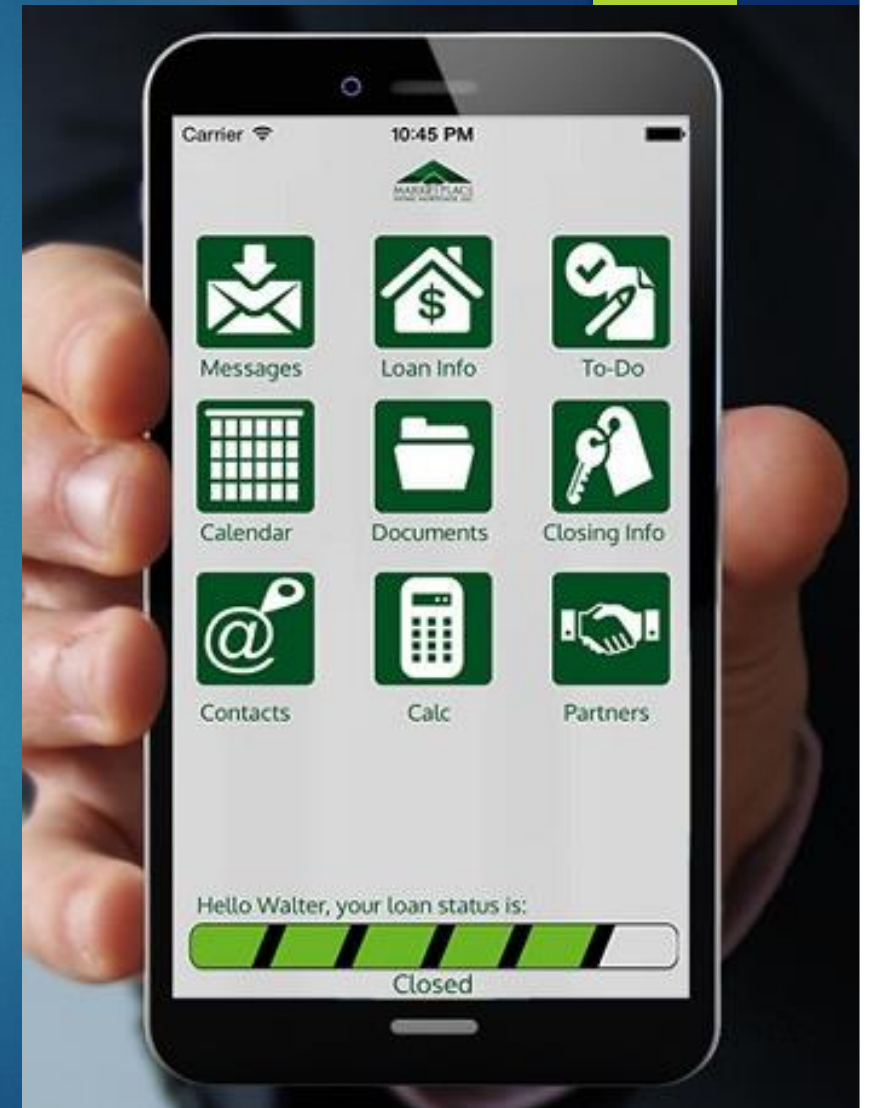


Exploring Smartphone User Needs and Preferences Towards Making Major Online Purchases

SHANN BOSSALLER, MICHELE MEINKE KROLL, DEVON WHETSTONE



Research Problem

As consumer e-Commerce purchasing patterns continue to increase, our study focused on what smartphone functions and tools are important design considerations for people to make major online purchases, such as home loans.

Theoretical Framework



Tools: Lender websites; comparison tools; DCog

Subject: VA Loan Seekers

Object: Securing VA home loan

Rules: VA Loan procedures; lender rules

Community: Ratings & reviews, spouses & family

Div. of Labor: VA Lender staff (documents/processing)

Research Questions:

1. What online information search strategies are utilized when using a smartphone to inform a major purchase decision?
2. What smartphone application and website functions support online information needs related to major purchase decisions?
3. How does either a desktop/laptop or smartphone support online information needs related to major purchase decisions?


Participant Recruitment:



N=14

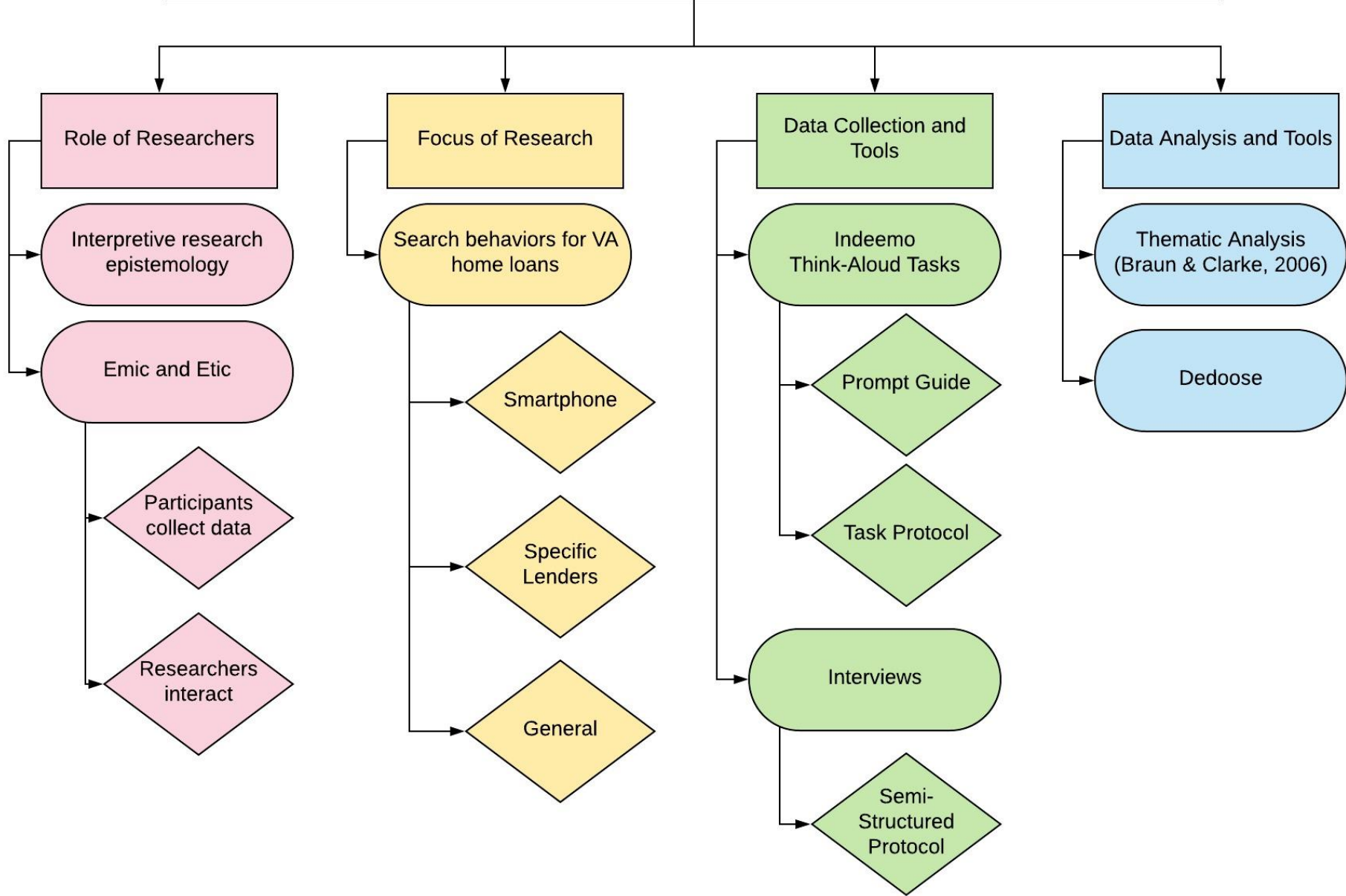
- States: 8
- Country: 1
- Gender: 5 F, 9 M
- Age:
 - 18-29: 6
 - 30-39: 7
 - 40-49: 1
- Education: 2 PHS, 6 B.S., 4 M.S., 2 PhD

Prefer:

9 = 

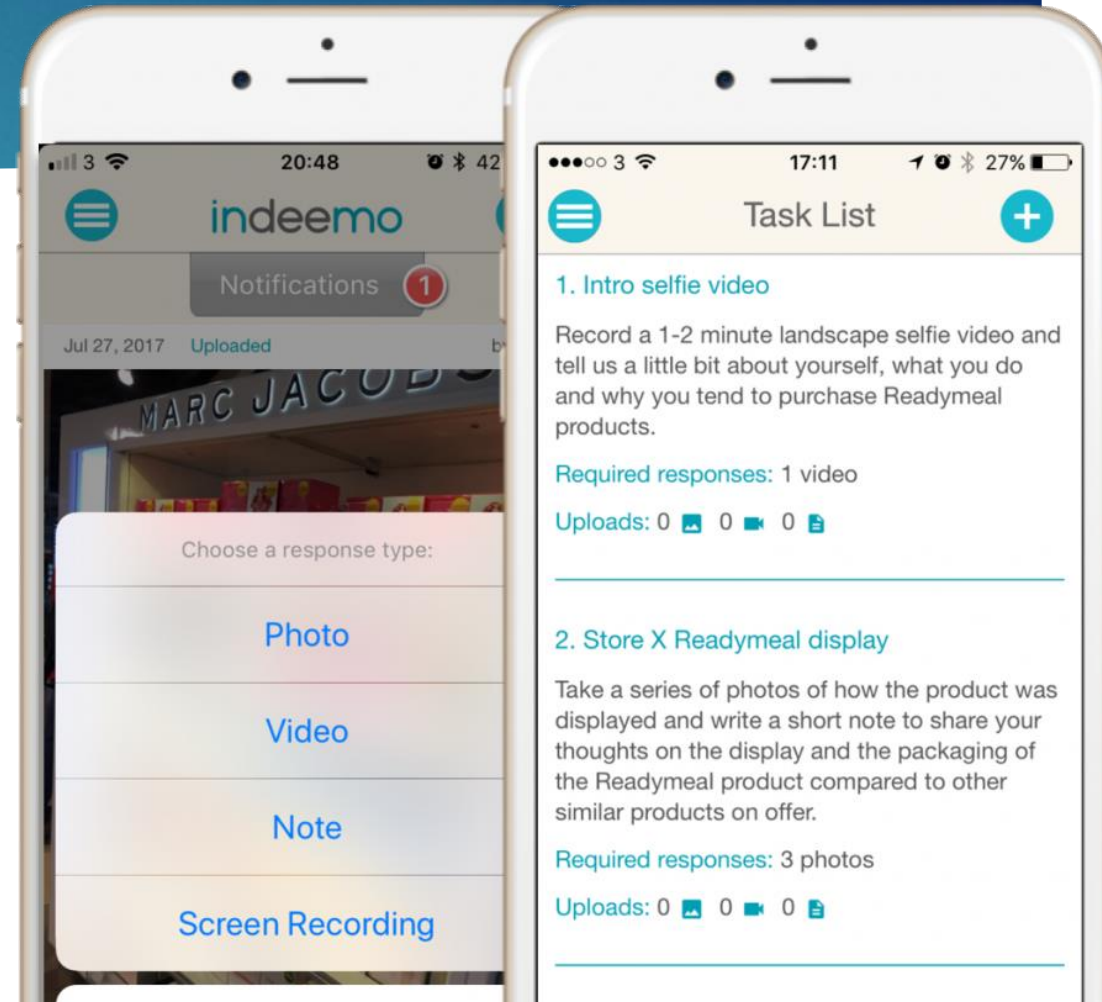
5 = 

Mobile Ethnography Research Dimensions
(Muskat, Muskat & Zehrer, 2017)



Data Collection

- ▶ Indeemo Mobile Ethnography Tasks
 - ▶ General Searches
 - ▶ Veteran's United Website and Tools
- ▶ Semi-Structured Interviews
 - ▶ Items aligned with research questions



Data Analysis

Mobile Ethnographies

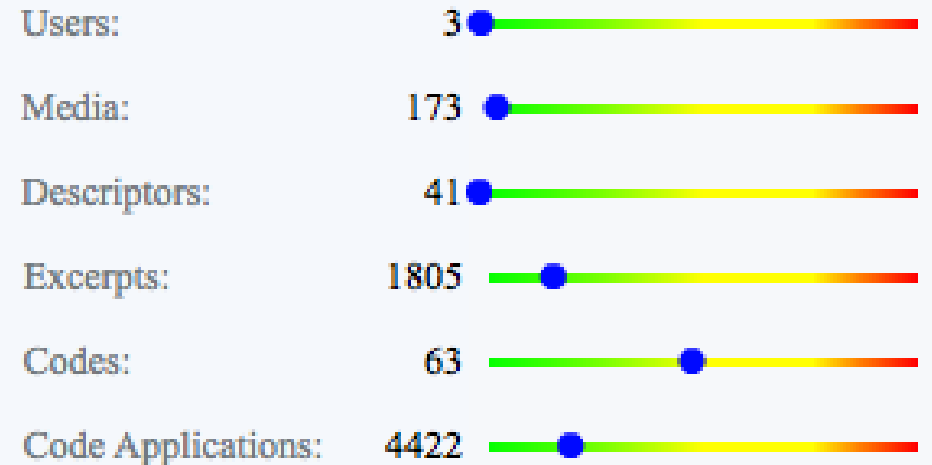
- 193 Screen Recordings
- 893 Minutes Total
- 64 Minutes Average Total Ethnography

Semi-Structured Interviews

- 14 Interviews
- 411 Minutes Total
- 29 Minutes Average Interview

Thematic Analysis (Braun & Clarke, 2006)

Project: HCI: Veterans United



Data Analysis

Excerpt & Coding Analysis

- Excerpt Theme Clustering
- Code Co-Occurrence

Codes	Codes																	Totals				
	Research Type	Cursory	In Depth	Function Supports	Functions Support	Functions Hinder	Smartphone	Smartphone Support	Smartphone Limitation	Smartphone Design	Desktop/Laptop	Desktop/Laptop Support	Desktop/Laptop Limitation	Reactions	Frustration	Satisfaction	Dissatisfaction		Expectation	Emergent/Misc	Empowerment	Information Overload
Research Type					1	2	1	2	4	3		3	2	2	1	1	2		1		1	26
Cursory			13	1	10	10	5	19	15	4		12			15	16	23	11		3	4	161
In Depth			13	1	10	10	1	7	11	1		17			11	14	22	7		3	3	131
Function Supports		1	1		3	1	2	3				1		2	1	2	2			1		20
Functions Support	1	10	10	3		22	5	15	16	9		11	2	2	13	34	23	10	2	4	5	197
Functions Hinder	2	10	10	1	22		5	16	35	13		15	3	1	24	35	37	12	2	4	11	258
Smartphone	1	5	1	2	5	5		11	9	7	1	5		5	5	8	6	6	3		3	88
Smartphone Support	2	19	7	3	15	16	11		21	13		19	4	4	20	22	18	12	1	2	3	212
Smartphone Limitation	4	15	11		16	35	9	21		16	2	27	3	2	25	32	36	19	3	4	11	291
Smartphone Design	3	4	1		9	13	7	13	16		3	9	2	5	9	14	10	6	4		6	134
Desktop/Laptop							1		2	3		4		2	2	1	1		2		2	20
Desktop/Laptop Support	3	12	17	1	11	15	5	19	27	9	4		2	3	22	19	25	12	4	3	9	222
Desktop/Laptop Limitation	2				2	3		4	3	2		2			2	3		2			1	26
Reactions	2			2	2	1	5	4	2	5	2	3			4	8	5	1	4	1	3	54
Frustration	1	15	11	1	13	24	5	20	25	9	2	22	2	4		33	33	18	2	1	9	250
Satisfaction	1	16	14	2	34	35	8	22	32	14	1	19	3	8	33		59	21	3	10	20	355
Dissatisfaction	2	23	22	2	23	37	6	18	36	10	1	25		5	33	59		20	4	10	23	359
Expectation		11	7		10	12	6	12	19	6		12	2	1	18	21	20			1	5	163
Emergent/Misc	1				2	2	3	1	3	4	2	4		4	2	3	4			1	4	40
Empowerment		3	3	1	4	4		2	4			3		1	1	10	10	1	1		1	49
Information Overload	1	4	3		5	11	3	3	11	6	2	9	1	3	9	20	23	5	4	1		124
Totals	26	161	131	20	197	258	88	212	291	134	20	222	26	54	250	355	359	163	40	49	124	

Findings (Qual Saturation: repeated instances, no new themes)

- **Users can have specific device preferences of using either a desktop/laptop or smartphone/mobile to research their major purchase research needs**
- Users who practice in depth research prefer desktop/laptops
- **Mobile/Smartphones support initial research for major purchase journeys**
- Most users use distributed cognition tools to support their major purchase research journeys

Implications for HCI

➤ **Future Research**

- Different Device Users Types and Framework of Supports
 - Consumer Types?
 - Less Detailed- Smartphone Users?
 - More Detailed-Desktop/Laptop Users?

➤ **System Design Implications**

- Connected system to move seamlessly between devices.

➤ **Distributed Cognition Importance**

- Manage information/empower users.



Thank You:

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