HOW TO DO A SCOPING REVIEW.

A step-by-step walkthrough using a real paper as our example

WHAT IS IT?

A SCOPING REVIEW MAPS A FIELD.

Not "what is the best treatment" -- but "what has been studied, how, and what gaps remain?"

WHERE WE ARE?

10 Apr	Friday	1.5	Before class: Read this, and prepare a few papers to be coded in today's lab session
			
			During class: The two activities of
			// Discussion of this
			// Working on Deliverable 1	

11 Apr	**Deadline: Submit Scoping Review Report here (Deliverable 1)**			
14 Apr	Tuesday	3		Reflection tools of who and which values are affected
15 Apr	**Deadline: Submit Individual Peer Review of Deliverable 1 (Deliverable 2) here**			
17 Apr	Friday	1.5		Reflection tools of who and which values are affected
19 Apr	**Deadline: Resubmit Scoping Review Report (Final Deliverable 1) here**			

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SYSTEMATIC REVIEW

Narrow question. Synthesizes evidence. Judges study quality. Answers "does X work?"

SCOPING REVIEW

Broad question. Maps the territory. No quality appraisal. Answers "what do we know about X?"

KEY TERM

VA

VIRTUAL ASSISTANT

Any software agent that converses with a user -- chatbots, medical avatars, voice agents, LLM-powered tools.

NON-AI VA

Rule-based. Scripted responses. Sends reminders, follows fixed decision trees. Predictable but rigid.

AI VA

Uses ML, NLP, or LLMs. Adapts to input. Can personalize -- but can also inherit algorithmic biases.

STEP 1 -- DEFINE YOUR QUESTION

START BROAD.
STAY FOCUSED.

This paper asks: how is patient-centered care enacted in VA design for chronic illness?
Two sub-questions: one on care framing, one on patient involvement.

STEP 2 -- CHOOSE A FRAMEWORK

PRISMA

PREFERRED REPORTING ITEMS FOR SYSTEMATIC AND META-ANALYSES

A checklist that makes your review transparent and reproducible. Anyone should be able to follow your steps and get the same result.

THE VARIANT USED IN THIS PAPER

PRISMA-ScR

PRISMA EXTENSION FOR SCOPING REVIEWS

Same logic as PRISMA, adapted for exploratory reviews. Includes a mandatory flow chart showing how many papers were found, screened, and kept at each stage.

STEP 3 -- BUILD YOUR SEARCH

FOUR CONCEPT CLUSTERS.

WHO	chronic illness · chronic disease · chronic condition
WHAT	chatbot · VA · LLM · avatar · GPT · conversational AI…
CONTEXT	digital health · mHealth · eHealth · self-management app
PROCESS	design* · develop* · implement* (wildcards capture all forms)

STEP 3 CONTINUED -- WHERE TO SEARCH

USE MULTIPLE DATABASES.

ACM · Scopus · Web of Science · PubMed
Chosen to cover both HCI conferences and medical journals. One database is never enough.

THE SEARCH RETURNED

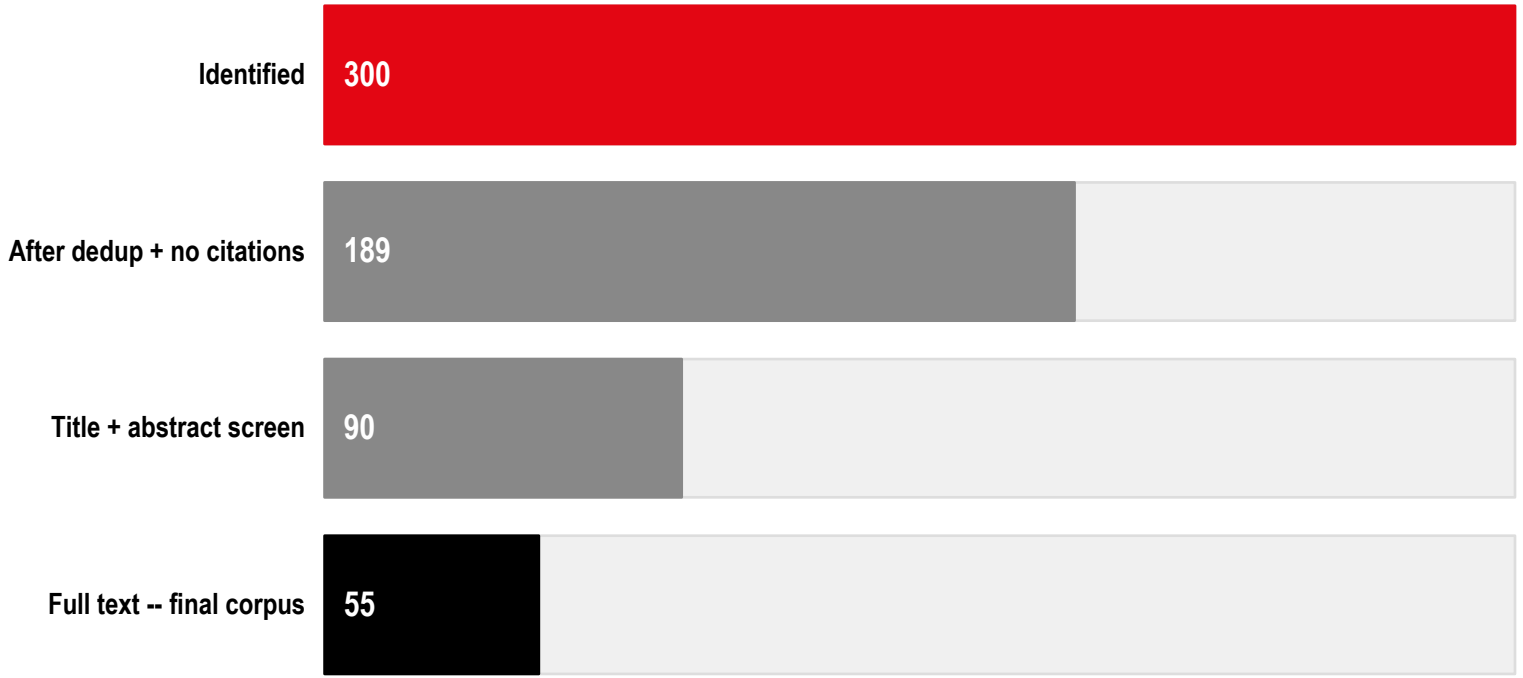
300

papers.

That is normal.

Now you screen them down.

STEP 4 -- THE SCREENING FUNNEL



INCLUDE IF...

Chronic illness population.

Patient-facing VA.

Design process described.

Self-management focus.

EXCLUDE IF...

Acute conditions only.

Clinician-facing.

No design process described.

No VA described.

REDUCING BIAS

UNCERTAIN CASES GO TO THE TEAM.

One person screening alone introduces bias. Edge cases were discussed until the whole research team agreed.

STEP 5 -- ANALYSIS METHOD

RTA

REFLEXIVE THEMATIC ANALYSIS

A qualitative method for finding patterns in text. You read, label, group, and name themes. Your interpretation is part of the method -- not a flaw.

READ. CODE. GROUP. NAME.

Familiarize → generate codes → build themes → review and define them. Not a straight line -- you go back and revise.

PRACTICAL TIP FOR LARGE CORPORA

CODE 10% FIRST. THEN ALIGN.

Code a sample independently. Compare with your team. Resolve disagreements. Then apply to the full corpus. This paper used ATLAS.ti to manage it.

THEY EXTRACTED THREE THINGS PER PAPER

CARE · FUNCTION · PARTICIPATION.

How is care framed? What does the VA actually do? How involved were patients in building it?

STEP 6 -- SYNTHESIZE

THEMES BECOME FINDINGS.

Codes grouped into 7 themes. Themes collapsed into 2 overarching care approaches: reductionist and holistic. One finding per research question.

FINDING 1 -- FROM RQ1

MOST VAs REDUCE CARE TO COMPLIANCE.

AI-powered VAs do this more than non-AI ones: 64% vs 43% prioritize reductionist care.

FINDING 2 -- FROM RQ2

MOST PATIENTS ARE EVALUATORS, NOT CO-DESIGNERS.

STEP 7 -- STATE WHAT YOU ADD

WHAT DOES YOUR REVIEW CONTRIBUTE?

A mapping of care dimensions. A categorization of patient roles. Design implications. One clear deliverable per research question.

STEP 8 -- KNOW YOUR BLIND SPOTS

ENGLISH ONLY. WESTERN BIAS.

Only English-language papers were searched. This excludes perspectives from non-Western research traditions.

ANOTHER BLIND SPOT

ACADEMIC PAPERS ONLY.

Industry practice and deployed products are invisible. The real world may look very different from the published record.

ONE MORE

ZERO CITATIONS = EXCLUDED.

Papers with no citations were removed. This filtered noise -- but also cut out very recent work. Every threshold is a trade-off.

THE GOLDEN RULE OF REVIEWS

DOCUMENT EVERY DECISION.

Your review is only as trustworthy as your audit trail.

THE EIGHT STEPS

1 QUESTION	2 FRAMEWORK	3 SEARCH	4 SCREEN
5 CODE	6 SYNTHESIZE	7 CONTRIBUTE	8 LIMIT

NOW YOU TRY. STEAL.

Pick your scoping review. Follow the steps in this paper. Report at least 3 things your scoping review is missing (what you can steal from this paper).