

How to implement technology change in the clinical setting: A case study using ambient voice



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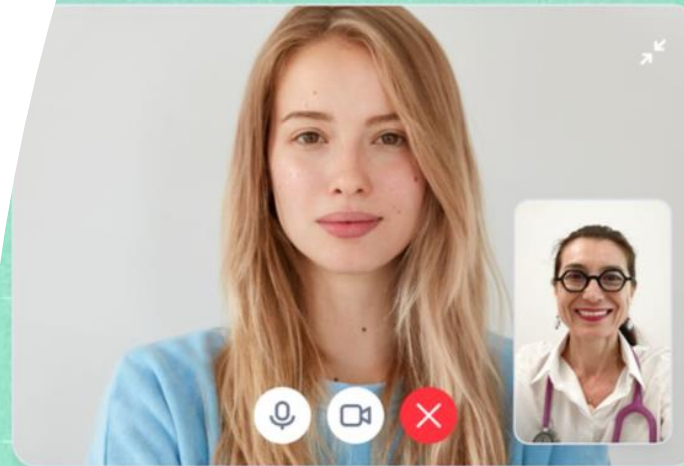
BMJ Future Health

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- Dr Harpreet Sood

Ambient AI Assistants

- Transformative technology
- Easy to use interface
- Seamless part of the workflow
- Saving nearly two hours typing time during a full day clinic
- Focused and less stressed consultation



Clinical note

Chief complaint

Fatigue and headaches

Symptoms

Tiredness all day long, difficulty focusing at work, headaches on the right side

History of present illness

Patient reported feeling fatigued since beginning of April, with headaches at the end of the day.

Past medical history

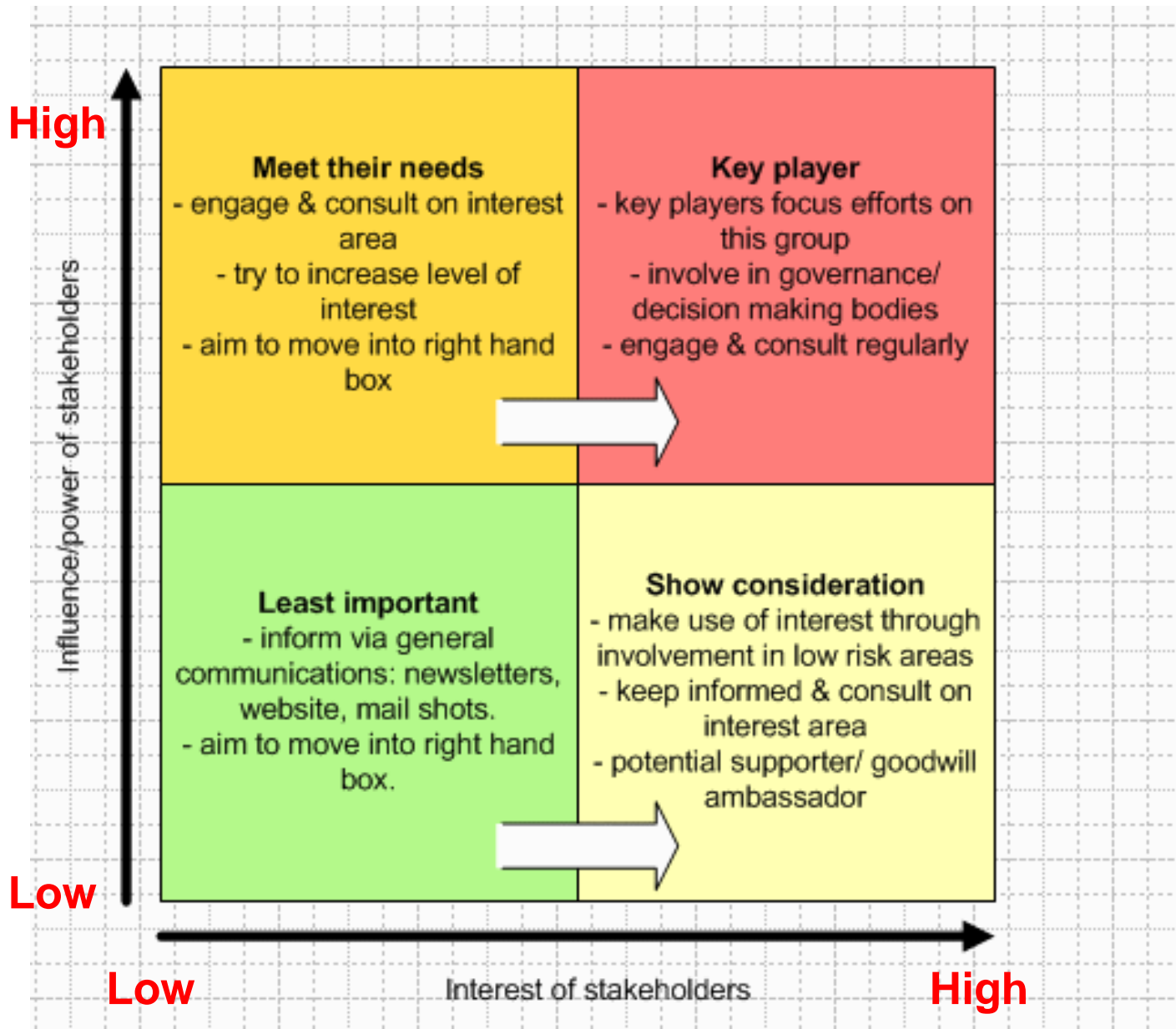
Patient has high blood pressure and high sugar levels. Patient's mother has type 2 diabetes.

Medication

2mg Melatonin

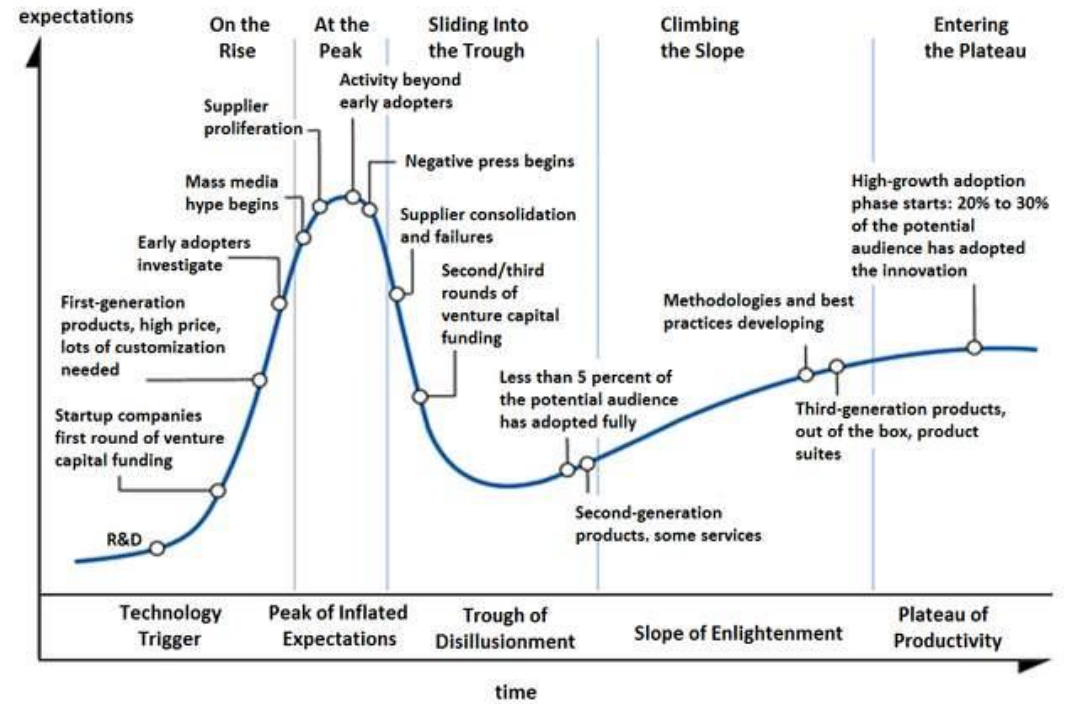
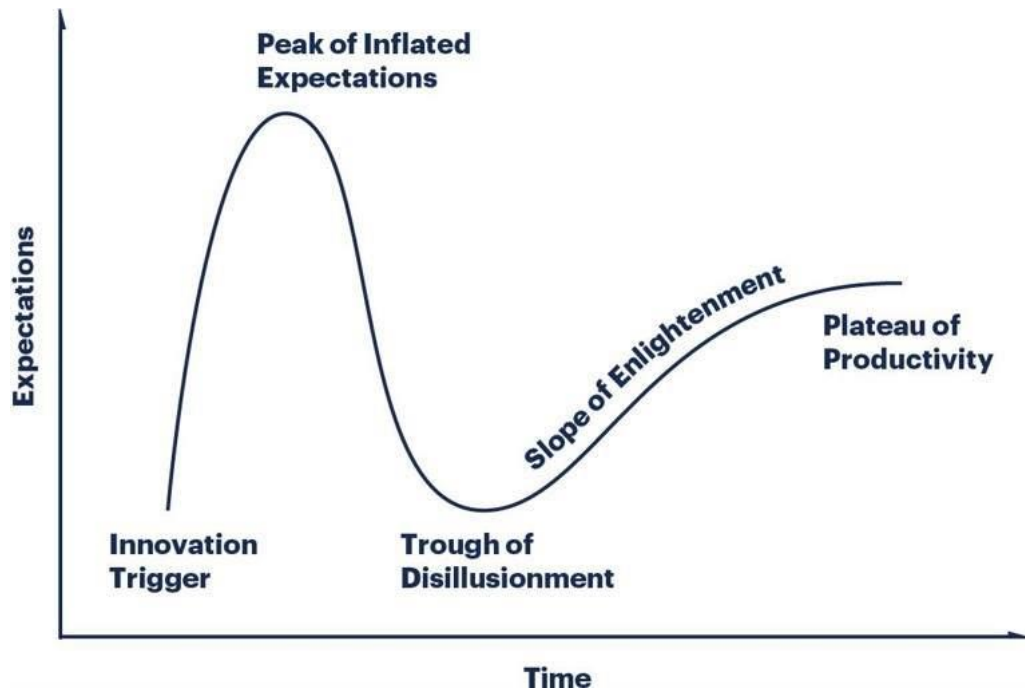
Still there are barriers to adoption

- Is there any evidence the tool leads to productivity?
- If the tool is listening to our conversation, where is the data going?
- Does the tool pick up all importance cues?
- It is about trust and creating an environment.

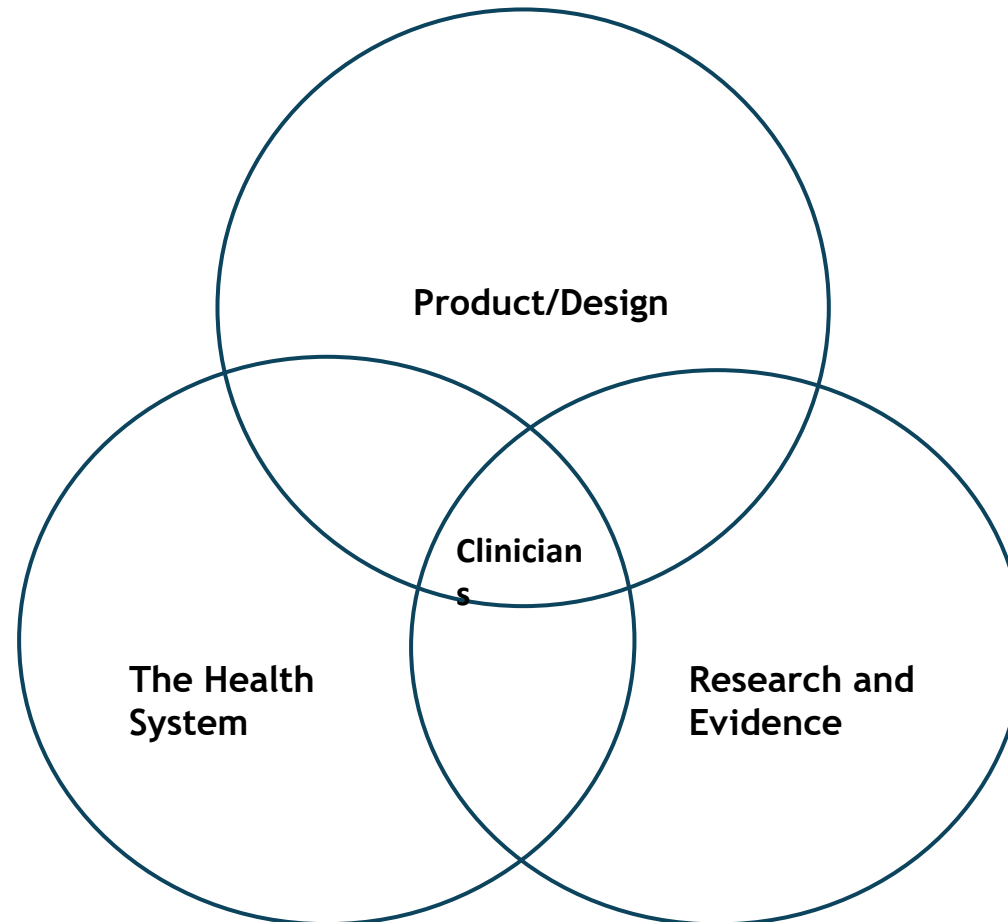


The Hype Cycle

The Hype Cycle is a branded graphical presentation developed by Gartner to represent the maturity, adoption, and social application of specific technologies.



The changing landscape



The Role of Clinicians in Digital Health

Ensuring Right Narrative

Help build the narrative and story on the how and the why.

Clinical Relevance

Help ensure solutions are clinically relevant by providing insights into the needs and realities of clinical practice and ensuring that the technology aligns with clinical workflows and processes.

Identifying Use Cases

Help identify use cases that might not be obvious to technologists, by providing insights into the challenges and opportunities of clinical practice.



The Importance of Evidence in Digital Health

Types of Evidence in Digital Health

Different types of evidence such as clinical trials, observational studies, and systematic reviews are used to evaluate the safety and effectiveness of digital health solutions.

Challenges in Generating and Evaluating Evidence

Generating and evaluating evidence in digital health is challenging due to factors such as rapid technological advances, data privacy concerns, and the need for specialised expertise.

Examples of Evidence-based Digital Health Solutions

Evidence-based digital health solutions such as telemedicine, wearables, and health apps are transforming the way healthcare is delivered and improving patient outcomes.



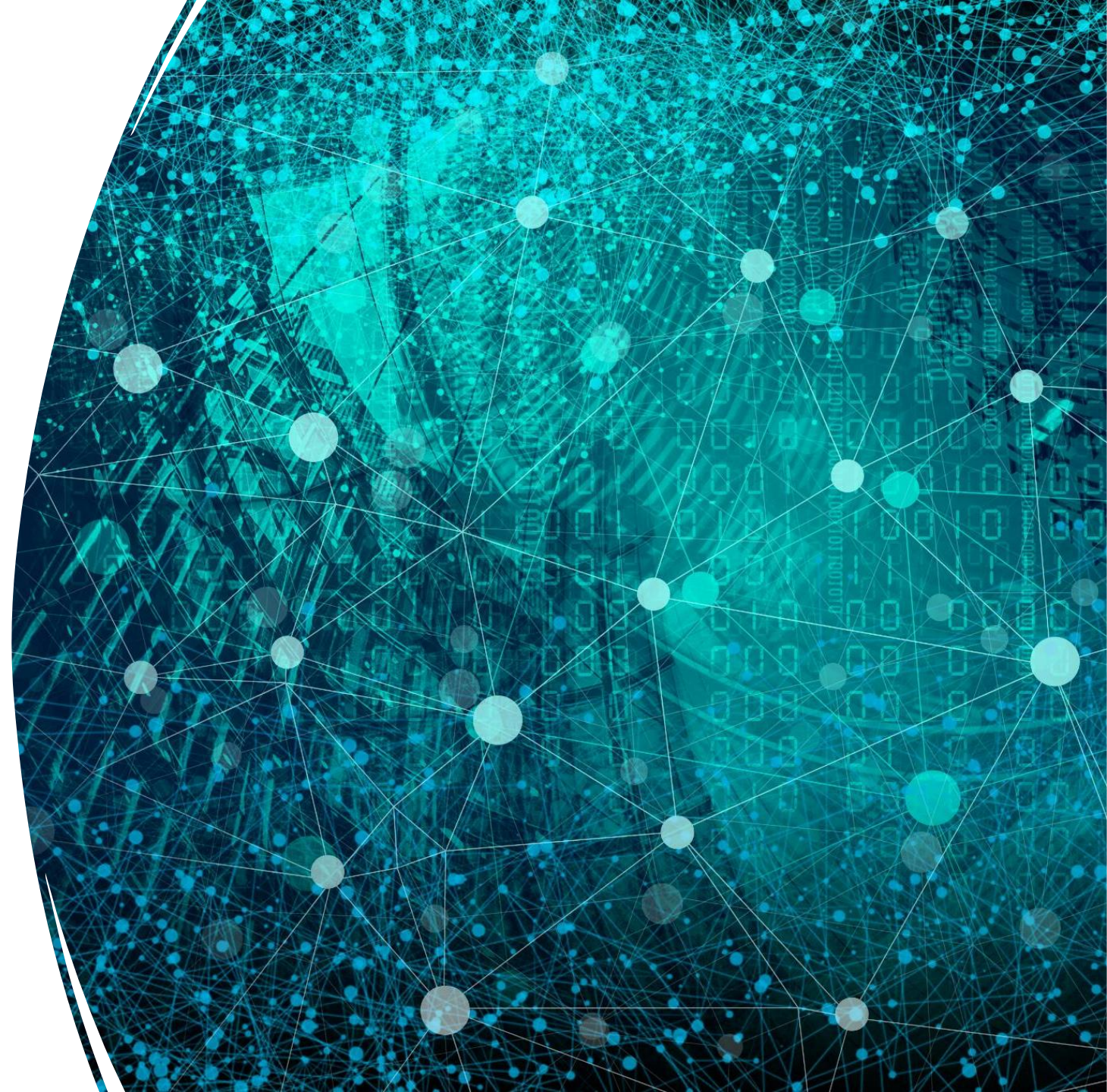
Challenges of Evidence in Digital Health

Variability in Data Quality

A major challenge in generating evidence is the variability in data quality. As data comes from various sources, it is often heterogeneous and inconsistent, making it difficult to draw meaningful conclusions.

Assessing Causality

Another major challenge in digital health is assessing causality. With many factors influencing health outcomes, it is often difficult to establish a clear cause-and-effect relationship between digital health interventions and health outcomes.



The Importance of Clinical Leadership in Digital Health Innovation

Understanding Patient Needs

Directly involved in patient care and understand patient needs, preferences, and challenges better than anyone. Their perspective ensures that digital health tools are designed to enhance patient experiences, improve outcomes, and empower patients in their care.

Integrating Technology into Practice

Ensure that digital health innovations integrate smoothly into existing clinical workflows. They can advocate for solutions that support rather than disrupt the work of healthcare providers, minimising resistance to new technologies and improving adoption

Clinical Oversight for Technology Adoption

Vital role in evaluating the quality and safety of new digital health tools, ensuring that they meet high standards of safety, accuracy, and effectiveness before they are deployed in patient care settings.

Benefits of Clinical Involvement

Effective and Efficient Solutions

User-Friendly Solutions

Integration with Existing Workflows and Systems

Commercial Benefit





Barriers to Clinical Involvement

Lack of Time

Clinicians often have busy schedules and may feel that they do not have enough time to learn about and implement digital health solutions into their practices.

Lack of Training

Clinicians may lack the training and knowledge needed to effectively use digital health solutions, leading to low adoption rates and ineffective use of technology.

Concerns about Liability

Clinicians may have concerns about liability issues.

Cultural - Risk Averse versus Innovation

Often clinicians are more risk averse due to training and attitudes.