

Discussion Guide

Rebooting Cancer Care

Ctrl+Alt+Cure

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Discussion Guide - Rebooting Cancer Care: Ctrl+Alt+Cure

How to Use This Guide

This discussion guide is designed for book clubs, medical education courses, patient support groups, and healthcare innovation workshops. Questions are organized by chapter and categorized by audience type. Choose questions that best suit your group's interests and expertise level.

Introduction: The Ctrl+Alt+Delete Moment

For All Readers

1. What does the Ctrl+Alt+Delete metaphor mean to you in the context of healthcare?
2. Have you experienced the "system freeze" in cancer care personally or professionally?
3. What aspects of current cancer care most need a "reboot"?

For Healthcare Professionals

4. How does information overload affect your daily practice?
5. What would you preserve from traditional oncology in this reboot?

For Patients and Families

6. What frustrated you most about navigating the cancer care system?
7. How could technology have improved your experience?

Chapter 1: New Eyes on an Ancient Malady

Comprehension Questions

1. How did the AlphaFold breakthrough change our understanding of what's possible with AI?
2. Why is cancer described as an "adaptive system" rather than just a disease?

Application Questions

3. If AI can "see" patterns humans cannot, what are the ethical implications?
4. How might AI's perceptual abilities change cancer screening programs?

Reflection Questions

5. Does knowing AI can detect cancer earlier create anxiety or relief? Why?
6. How do you feel about machines potentially knowing more about your body than you do?

Group Discussion

7. Should AI findings that humans can't verify still guide treatment decisions?

Chapter 2: The Weight of Knowing

For Healthcare Professionals

1. How has information overload affected your ability to provide care?
2. What percentage of relevant medical literature do you estimate you can keep up with?
3. How has EHR documentation changed your relationship with patients?

For All Readers

4. If 44% of oncologists experience burnout, what does this mean for patient care?
5. Should we accept that human cognition has limits in modern medicine?

Action-Oriented

6. What systemic changes could reduce cognitive burden on physicians?
7. How can patients help address the information overload crisis?

Chapter 3: The Imitation Game of Life

Conceptual Questions

1. How do the chess and Go examples help us understand AI's evolution?
2. What's the difference between AI "intelligence" and human intelligence?

Practical Applications

3. Which biological problems seem best suited for AI solutions?
4. What concerns you most about AI making life-or-death decisions?

Philosophical Discussion

5. If AI can predict outcomes better than humans, who is responsible for decisions?

6. Does it matter if we don't understand how AI reaches its conclusions?

Chapter 4: Decoding the Algorithm

Learning Check

1. Can you explain the difference between supervised and unsupervised learning?
2. How do neural networks mirror biological brain function?
3. Why does healthcare generate ideal data for AI training?

For Healthcare Professionals

4. What level of AI understanding should be required for medical professionals?
5. How would you explain AI decision-making to patients?

Critical Thinking

6. What are the dangers of treating AI as a "black box"?
7. How can we ensure AI systems remain tools rather than masters?

Chapter 6: Intercepting Malignancy

For Patients and Families

1. Would you want to know about cancer risk detected by AI years before symptoms?
2. How would early AI detection change your life decisions?

For Healthcare Professionals

3. How should we communicate uncertain AI predictions to patients?
4. What infrastructure changes would your practice need for AI integration?

Ethical Considerations

5. Who should have access to AI-powered early detection?
6. How do we prevent AI from creating a "worried well" population?

Policy Discussion

7. Should AI screening tools be regulated differently than traditional tests?

Chapter 15: Ctrl+Alt+Cure - The Human in the Loop

Vision and Implementation

1. What does "keeping humans in the loop" mean practically?
2. How can we ensure AI enhances rather than replaces human connection?

For Healthcare Organizations

3. What would be your first step in implementing AI in your organization?
4. How would you address staff concerns about AI replacement?

For Patients

5. What role do you want in AI-assisted medical decisions?
6. How can patients advocate for both innovation and human care?

Societal Questions

7. How do we ensure AI benefits reach underserved communities?
8. What safeguards are needed to prevent AI from widening health disparities?

Call to Action

9. What specific action will you take after reading this book?
10. How can we collectively initiate the "cure" the book envisions?

Cross-Cutting Themes for Extended Discussion

The Human-AI Partnership

- What's the ideal balance between human judgment and AI recommendations?
- How do we preserve empathy and compassion in an algorithmic age?
- Can AI actually free up time for more human connection, as promised?

Equity and Access

- How do we prevent AI from becoming a luxury for the wealthy?
- What policies would ensure equitable access to AI-enhanced care?
- How might AI reduce or exacerbate existing health disparities?

Trust and Transparency

- What would make you trust an AI system with your health?

- How transparent should AI decision-making be?
- Who is liable when AI makes a mistake?

The Future of Medicine

- Will the next generation of doctors need different skills?
- How might the doctor-patient relationship evolve?
- What aspects of medicine should always remain human?

Personal Impact

- How has this book changed your view of cancer care?
- What surprised you most about AI's current capabilities?
- What gives you hope? What concerns you?

Activities and Exercises

For Book Clubs

- Role Play: One member plays a patient, another a doctor explaining AI-assisted diagnosis
- Future Visioning: Describe your ideal cancer center in 2035
- Ethics Debate: Should AI predictions override human physician judgment?

For Medical Education

- Case Study Analysis: Review real AI diagnostic successes and failures
- Technology Assessment: Evaluate an AI tool for clinical use
- Patient Communication Practice: Explain AI findings to different patient personas

For Patient Groups

- Advocacy Planning: Develop questions to ask providers about AI tools
- Resource Mapping: Identify AI-enhanced care options in your area
- Story Sharing: Discuss experiences with technology in cancer care

For Innovation Workshops

- Problem Identification: Map current pain points AI could address
- Solution Design: Sketch an AI tool to solve a specific problem
- Implementation Planning: Create a roadmap for AI adoption

Suggested Reading Schedule

4-Week Intensive

- Week 1: Introduction + Chapters 1-2 (Foundation)
- Week 2: Chapters 3-4 (AI Fundamentals)
- Week 3: Chapter 6 + selected middle chapters (Applications)
- Week 4: Chapter 15 + integration discussion (Future Vision)

8-Week Comprehensive

- Week 1: Introduction
- Week 2: Chapter 1
- Week 3: Chapter 2
- Week 4: Chapter 3
- Week 5: Chapter 4
- Week 6: Chapter 6
- Week 7: Selected middle chapters
- Week 8: Chapter 15 + wrap-up

Self-Paced Study

- Start with Introduction and Chapter 15 for overview
- Read Chapter 4 for AI fundamentals
- Select chapters based on specific interests
- Return to Chapter 15 for integration

Additional Resources

For Continued Learning

- Online AI in Medicine courses (Coursera, edX)
- Medical AI conferences and webinars
- Patient advocacy organizations embracing AI
- Healthcare innovation newsletters and podcasts

For Taking Action

- Questions to ask your oncologist about AI tools
- How to advocate for AI adoption in your hospital
- Patient rights regarding AI-assisted care
- Resources for understanding your AI-generated results

This guide aims to spark meaningful conversations about the transformation of cancer care through AI while ensuring all voices—patients, providers, and policy makers—are heard in shaping this future.