Zayna Khayat, Ph.D. – Applied Futurist & Adjunct Professor
Blurbs on courses-lectures-keynote talk-workshop-podcast topics

* *= can be tailored to ANY sector or industry beyond healthcare and life sciences*

1. **Healthcare innovation** *
Why Innovation is a table stakes capability now in all entities involved in healthcare – delivery, clinicians, education, government, insurance, private industry and even civil society / patients/ families.
What health innovation is and is not, including its distinction from quality improvement. Definitions and types of innovation.

How to do health innovation – as an individual and in your organization. Tools and methods to do innovation including design thinking / design sprints, business model innovation and system innovation. How to organize internally for innovation – different models depending on your context and maturity. How to build a culture and DNA for innovation.

2. **Partnerships in 21st century healthcare** *
Understand why partnerships are core to any healthcare organization's strategy and staff's/clinician's core competencies

Define partnerships in a healthcare context

Understand nuances of the stages of the partnership lifecycle

Gain practical tips and practice applying 21st century partnerships competencies and tools to your own healthcare partnerships (current, future)

3. **Futurism / Futures Thinking** [why, how, what; future-ready] *
Rapid and unpredictable dislocations in society, work, technology, and industry are stymying traditional methods of planning and forecasting. To grapple with this dizzying change, more and more organizations are embracing futurism as a core competency. This takes many forms, such as appointing an in-house futurist, building an internal futures team, recruiting embed futurists-in-residence, applying strategic foresight techniques, and adopting futures thinking in the organization's ways of working. Applied health futurist Dr. Zayna Khayat will share some lessons learned in doing this work for many years and guide you on how to adopt futurism into your own work.
Applicable to every organization – of any type or size, at all levels including the board of directors.

We will define what futurism is, explore methods that futures practitioners use, and different models' organizations are taking to embed futurism into their day-to-day work and operating models. Applied workshops will enable you to practice some of the tools used in futures work.

4. **System-level change innovation** *
As we emerge from the industrial economy, and, more recently the information/knowledge economy, a new solution economy confronts us. This will require different ways to create value, at the boundaries of multiple sectors and entities in the capital markets, public goods, para-public space and new constructs in the social innovation economy. Dr. Khayat will explore models, case studies, and insights for doing and scaling social innovation or system level, at scale.

5. **Smashing orthodoxies** *
We explore why and how outdated orthodoxies (paradigms/mindsets/unwritten rules) that no longer serve

interfere with creating the future. In a hands on workshop, we will practice stretching outdated mindsets to unlock credible paths to the future that you/your organization wants to realize.

6. **New business models [in healthcare]** *
A deep dive on new business models that are emerging in the healthcare industry. These include value-based healthcare, capitation, outcomes financing, pay for performance guarantees, risk sharing, gain sharing, subscription models and more.

We will unpack why the legacy one size fits all fee-for-service business model no longer serves, how and why new business models are emerging, case studies of success and failure, and how to begin shifting your own business model(s) or creating entirely new ones.

7. **Future of the health workforce**
We will frame the drivers of the current challenges / crisis among the health workforce, globally. And explore a new frame for addressing the challenges beyond legacy practices of hiring more and trying to retain with legacy incentives such as compensation and professional development. Through the lenses of redefining the Work, the Workers and the Workplace, concrete strategies, tools, policies and practices to protect and liberate current workforce, and create the health workforce of the future will be explored and practiced.

8. AI + Healthcare
A state of the state of the AI landscape in healthcare (which changes daily/weekly). Unpack the definition of AI in healthcare, the promise, the myths, the realities using real world use cases from across the globe and different clinical or operational contexts.

9. Digital health - the new healthcare tech stack
A review of the digital health landscape in Canada and globally from a lens of ‘maturity’ across enterprise/backbone, clinical and data infrastructure. The state of the state of the new healthcare tech stack will be explored, with key use cases in the field already, promises, myths, and realities. Key technologies include AI, ‘omics/data, voice, virtual care, virtual reality, sensors/wearables, autonomous transportation, nanotech, precision therapy, advanced diagnostics, advanced manufacturing/3D printing, cellular therapy, 5G, and quantum.

Optional – health tech gadgets lab, where 5-10 emerging technologies are available for learners to try out in a series of stations.

10. Future of capital in healthcare
We will unpack why nearly every health system in the world is struggling with affordability – the ability to pay for the workforce, operations, technologies and physical capital needed to appropriately meet the needs of the people who finance the healthcare system. Evolving and emerging new ways of ‘paying for healthcare’ that are emerging will be explored – whether it is for goods/supplies (drugs, devices, technologies, equipment, consumables), capital (buildings, equipment), humans (clinical, admin), research or education.

11.**Future of Health**
Key forces and drivers accelerating the shift to the future of health

Key shifts & trends underway (organized into 6 shifts).

What the future of health looks like – case examples are specific to the sub-sector of interest

Implications for 3 types of agents – incumbents (health systems, clinicians, delivery orgs, industries, etc.), adjacent players (insurers, pharmacy, labs, tech giants), and new entrants to healthcare (banks, telcos, retailers, grocers, car companies, etc.)
Focus on the new healthcare tech stack e.g. VR, AI, voice, precision medicine technology, sensors/wearables,

etc.
- keynote talk with option to couple to an interactive workshop to apply the ideas

12. **Global healthcare systems**
Scan of examples of jurisdictions (countries, regions) or specific health organizations or systems that are creating the future of healthcare for the 21st century
Framework of discussion depends on the participants i.e. could be focused on tech adoption like AI or virtual care, the health workforce, payment model innovations, policy innovations, care model innovations, primary care etc.
Workshop to draw insights from the global examples to apply to your own day to day work and personal mission.
Key countries in scope: US (publicly funded and privately insured), Netherlands, Brazil, China, Singapore, Israel, England, Estonia, Germany, France, Saudi Arabia, Japan, Spain, African regions

13. **Future of healthcare at home**
An overview of the forces and drivers that will move 70% of current health care that is conducted in facilities/clinics into the home and/or 'anywhere'. Key phenomena include hospital at home (the home-spital), diagnostics at home, procedures at home (chemotherapy, dialysis, surgery), primary care at home and more.

14. **Health innovation ecosystems**
A review of the landscape for the new health economy, with a focus on government and regional strategies to build tech startup ecosystems in healthcare and life sciences.

Lessons learned from Canada and globally of ambitious organizations and jurisdictions that tried to create a local 'Silicon Valley for health tech' as a wealth and health creator. Success and failures, and how to propagate or avoid them, respectively.

15. **New entrants to healthcare**
Explore new players that are making big plays in healthcare, from large tech giants like Amazon and Apple, to smaller startups to other industries such as banking, telecom, retail and other public goods (such as postal workers).
We will practice the concepts via a 45 min design sprint to prototype a new business model and offering for a new entrant that has not yet made a serious play in healthcare.

16. **Future of (Clinical) Education in Healthcare**
How legacy business models, operating models and education models in higher education need to – and are – evolve in the context of the future of health, and the future of the health workforce.
We will go deep on two main types of professionals – physicians (general and family), and nurses. With an option to also explore allied health professionals.

17. **Future of health and biomedical research**
Drivers, forces, trends and shifts underway that are making nearly every aspect of how basic research, discovery research, clinical trials and health services research virtually unrecognizable.
This includes the role of tech, new funding / fundraising/ commercialization models, and the role of nouveau partnerships with unusual suspects.

18. **Future of pharmacy / future of retail in healthcare**
Given pharmacists have extensive higher education training beyond safely dispensing pills (which machines are now largely doing), and given pharmacists and pharmacists are on every street and community with hours of operation that are more flexible, and given better digital and home delivery assets they have built … we will explore why and how pharmacists, pharmacies and retailers in general are creating new business models to address intractable health care challenges that legacy incumbents have not been able to address.
We will emerge with scenarios for the pharmacy of the future based on shifts, trends, technologies, and early signals underway, globally.

19. **Future of hospitals**
We will unpack why the legacy roles of hospitals as sites for ER, OR, ICU, inpatient and outpatient specialty care are unbundling. How legacy hospitals are redefining what a hospital is, and how other agents are slowly taking on many / all roles that were historically relegated to hospitals.
A key focus will be the smart digitally enabled hospital, home-spital (hospital at home, hospital to home), integration with other people and entities that touch the patient in their pathways, and new revenue models to ensure fiscal stability of hospitals.

20. **Future of primary care**
Drivers, forces, shifts and trends that are propelling primary care towards new business models that ensure timely access to good primary care for those who need it (and finance it), while also stabilizing the primary care workforce of physicians, nurse practitioners, primary care teams and other extenders of these professionals, including technology.

21. **Future of any population/disease/med specialty**
A deep dive into any of the topics above through the lens of a priority population that has been underserved chronically. This includes women, the elderly, family caregivers, racialized people, rural/remote populations, Indigenous/Aboriginal/Native peoples. And/or key clinical populations such as mental health, sleep health, nutrition as medicine, key cancers, rare diseases, etc.

22. **Future of Aging** [economy, housing, tech, health, ageism] *
Insights from the book Dr. Khayat co-authored, called Future of Aging. The book provides a much-needed reboot of the perspective on how society, government and industry will engage with the aging population. It is also a reminder of the limits to current approaches to our services, products and policies. The vision Zayna Khayat and her coauthors propose is intended to help individuals and organizations of all types and from all sectors position themselves as long-term partners on whom aging adults can depend as they navigate their experiences of aging. This introduces many new business opportunities given that few needs of the aging population can be met with what is on offer today. There is a concrete opportunity to reimagine - and even create – the new policies, services, products, technologies, living spaces, built environments, and community models that will be transformative for the lives of older adults.

Dr. Khayat will give an overview of the 5 chapters of the book and go deeper into relevant chapters as appropriate (Ageism, Community, Technology, Healthcare, Longevity Economy).

23. Future role of boards in innovation, pivoting the organization and futureproofing *
Historically governance bodies had a primary mandate of Oversight, to protect the interests of stakeholders. In the shift from the industrial economy to the information economy, most boards expanded their mandate to include Insights i.e., ensuring the Directors understand trends, shifts and implications, especially related to technology. But few have evolved to adopt the next competency: Oversight. That is, a fiduciary responsibility of the board of directors to understand the forces, shifts and trends that are 3 to 10 years out, that will fundamentally change many aspects of the environment in which the organization is operating. These shifts will require different bets and strategies to be made if the board takes a ‘future-back’ approach to governance, instead of focusing on the present-forward.