Be prepared to answer the following questions by chat

- From your POV, what are the big challenges in focus and alignment around meeting business challenges that you face?
- Is your work Enterprise Architecture, Business Architecture, Enterprise Information Technology Architecture or other?
- What challenges are your organizations or clients facing on the pathway from design to business outcomes?

What you will learn

- practical patterns to create capability maps that foster co-design
 It's about a story that co-designers can use independently and collectively
- why capability modeling efforts fail and how to overcome the usual problems It's about the outcomes first and the outputs second
- ✓ how to connect other elements of the architecture with capabilities It's about leveraging the story and designing Facets and Elements from the story
- ✓ how to run a broad elicitation process with all relevant stakeholders It's about orchestrating co-design by all contributing and leveraging disciplines
- how to use capability maps in corporate management
 It's about co-design to build a coalition that understands what is required to realize outputs and outcomes then adapting to changing conditions through future states

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Three Questions that We want to Answer

How do I collect Capabilities?

- Co-Design in a way that integrates design, development, deployment, application, and leverage
- ✓ Start from an idealized future state
- ✓ Stop with a comprehensive 1st to 3rd Iteration set of measurable capabilities at level 2 or 3

How do I document Capabilities?

- ✓ Use common language and syntax
- Elaborate on a visualization of realizing (something close to) an idealized future state
- ✔ Focus diligently on "What" devoid of who, how, and where

How do I leverage Capabilities for better design of enterprises?

✓ Tell the story "To realize [element of the future state] we must have the ability to [capability] with the following performance and value contribution attributes.

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More than a Bit of Capability History

Management Science has evolved. Has EA kept pace?

From Internal Efficiency to External Adaptability

- ✓ 1950s Focus: Maximizing internal efficiency through techniques like linear programming, motion time management, and standardization.
- Today: Address the need to adapt to a dynamic internal and external environment. Competition, technology, and global markets require focus on adaptation and innovation.

From Standardized Processes to Human Capital

- ✓ Early View: Human factors were seen as secondary, with well-defined processes taking center stage.
- ✓ Today: The importance of human skills, knowledge, and creativity is acknowledged. Management science incorporates aspects of human capital management to develop and empower employees.

From Short-Term Optimization to Long-Term Vision

- Limited Scope: Early management science focused on short-term operational optimization through automation.
- Today: Short-Term goals consider Long-Term vision when aligning capabilities for sustained viability and vitality.

Additional Evolutionary Trends

- Rise of Complexity: Management science embraces new tools and frameworks to handle increasingly complex organizational structures and business ecosystems.
- Data Explosion: The vast amount of useful and not-so useful data available needs techniques like big data analytics to extract insights and inform decision-making.
- ✓ Focus on Sustainability: Modern management science incorporates environmental and social considerations alongside economic goals, aiming for business practices that sustain the viability and vitality of businesses.

Modern management science is struggling to understand the interplay of Geo-Politics, Products, Markets, Competing Values Sets, Economies, and Volatility of Capabilities Prime the Question Pump

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Enterprise Architecture Evolution. Practices Have Always Lagged

Pre-EA (1950s): Seeds of the Discipline

- ✓ Systems Thinking (1950s): emphasized understanding an organization as a complex system with interconnected parts. It laid the foundation for thinking about businesses holistically.
- Management Information Systems (MIS) (1960s & 1970s): focused on managing information systems to support business operations.

Birth and Early Days of EA (1980s & 1990s)

- ✓ The Need for Structure (1980s): As computer use grew in businesses, the need to manage IT infrastructure and ensure it aligned with business strategies became crucial. This led to the emergence of EA as a formal discipline.
- ✓ John Zachman's Framework (1987): provided a structured approach to classify and analyze various aspects of an enterprise, including its processes, information systems, and technology. John Zachman (IBM) and John Sowa (NCR) contributed to CC's thinking about Capabilities as Business / Enterprise Architecture Esperanto.
- ✓ The Society for Information Management: blends IT Infrastructure, IT Application, Data Communications and Operational Capability (people, process & technology) into a Framework for Business / IT Alignment. Bose: Continual Business/IT Alignment; Apple, MIT, NCR & IBM: Virtually Integrated Technical, Architecture Lifecycle (VITAL); and Zachman: Framework.

Standardization and Growth (2000s)

- Industry Frameworks: Organizations like The Open Group developed frameworks like TOGAF to provide standardized methods for defining and implementing EA practices.
- ✓ Focus on Business Alignment: EA matured beyond just technology, emphasizing aligning IT architecture with business architecture and overall organizational goals.

The Modern Era (2010s-Present)

- Cloud, Mobile, and Agile: The rise of cloud computing, mobile technologies, and agile development methodologies needed a more flexible and adaptable approach to EA.
- ✓ Focus on Business Value: proving the business value of IT investments and ensuring technology supports innovation and digital transformation initiatives.

 Collaboration and Tools: Communication and collaboration among business and IT became central to successful EA. Specialized software tools emerged to support architecture definition, documentation, and analysis.

Looking Ahead

- ✓ Digital Business Ecosystems: As businesses operate within complex digital ecosystems, EA will continue to evolve to address integration and management of technology across the entire ecosystem, including partners, suppliers, customers and communities.
- Emerging Technologies: quantum computing, artificial intelligence and blockchain will require ongoing adaptation of EA practices to leverage their potential and manage associated risks.

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Design Patterns for Capability Models

- Co-design with current and future process owners and all disciplines who will contribute to realization of Capabilities in Processes.
- Organize capabilities into three collections: Orchestrating Change, Operating, and Enabling
- Organize operating capability families to communicate a story about the organization's pathway to an achievable future state.
- Order top level families in the operating collection from left to right as value creation stream., i.e., the story how the organization creates value and will need to transform its capabilities.
- ✓ Express capability in verb-noun syntax to make it easy to tell the story.
- ✔ Constrain levels of capabilities to families, generic and specific.
- Assign attributes at the specific level based on financial and differentiation contribution.
- ✓ Iterate on the model and where there are performance gaps, use heatmaps to focus attention on what contributes most.

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Principles for Success with Capabilities beyond Enterprise IT Architecture

- Tune four components: Talent, Technology, Process, and Culture to convert specific inputs to specific outputs and outcomes.
- Capabilities are devoid of Who, How, Where, and When. They only describe What.
- ✓ Capability is not Competency or Process, or System
- ✔ Recognize that capabilities and capability deficiencies hide everywhere
- ✓ Those who do the work are the only ones who can describe the capabilities that they use, and most of those persons do not know how to communicate their knowledge to others
- Capabilities are best discovered by working backwards from an idealized future state
- Capability Models are multi-dimensional representations of a pathway to a series of realizable future states
- Diagnostics (tools that focus on symptoms) anchor people's mindsets in the current state and current pain points
- Dialogics (conversations that focus on an idealized future state) anchor people's mindset in a desirable, if idealized, future state
- Intentionally use capability modeling to level set understanding of the required future capability set first, then on what capabilities must be added, adapted, or shed. Build a coalition that will take design through development and deployment, to application, leverage, and adaptation

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