AGILE TECHNOLOGY PLANNING
EMBRACING CHANGE

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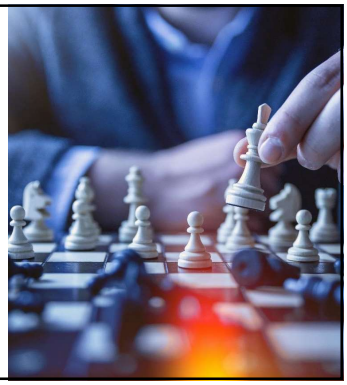
ASSOCIATION FOR LEARNING ENVIRONMENTS Enhancing the Educational Experience Southeast Region

> *The only constant in the technology industry is change.*
>
> — Marc Benioff
> *CEO, Salesforce*

> *The future ain't what it used to be.*
>
> — Yogi Berra

TODAY'S PROGRAM

- WHY WE PLAN
- WAYS TO PLAN
- 7 STEPS OF TECHNOLOGY PLANNING
- APPLYING AN AGILE APPROACH
- DIALOGUE / Q&A



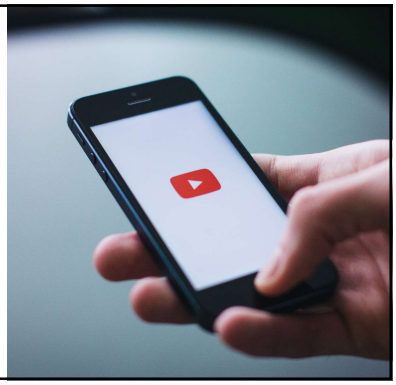
LEARNING OUTCOMES

- Identify challenges to effective strategic technology planning
- Develop planning guidelines aligned with organizational vision
- Apply agile processes to technology planning
- Define steps and processes needed to create an achievable, agile, strategic technology plan

WHY WE PLAN

THE CAMPUS DIGITAL EXPERIENCE

- **Connect**
- Communicate
- Collaborate
- Consume
- Contribute
- Convene
- Curate



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DIGITAL EXPERIENCE DESIGN

- Connect
- Communicate
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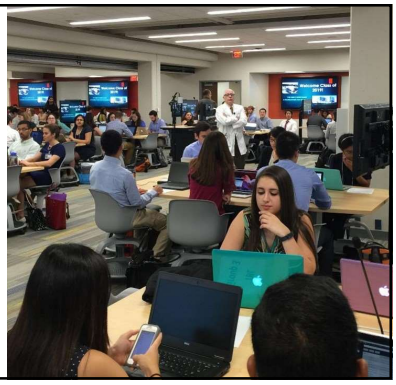

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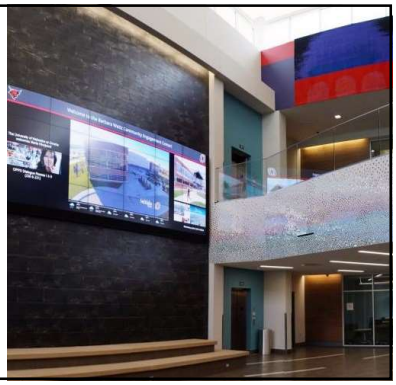


> *At the beginning of the day, it's all about possibilities…*
> *At the end of the day, it's all about results.*
>
> — Bob Prosen
> *Author, Kiss Theory Goodbye*

HOW TIMES HAVE CHANGED

THE OLD WORLD < 2019	IN SURVIVAL MODE 2020 – 2022	THE NEXT NORMAL ~ 2023+
GOAL: Incremental Improvement	GOAL: Program Continuity	GOAL: Purposeful Transformation

ADAPTING FOR IMPROVED LEARNING OUTCOMES

NEW PEDAGOGIES	NEW LEARNING SPACES
Peer-to-Peer	Hybrid/Flexible
Collaborative	Self-Directed
Engaged & Experiential	Informal
Visual & Kinetic	Inter-Disciplinary
Inter-Professional	Active/Engaged
Service-Oriented	Multi-Purpose
Value-Based	Virtual / Augmented

Source: Redesign Alliance

THE FUTURE: INFRASTRUCTURE

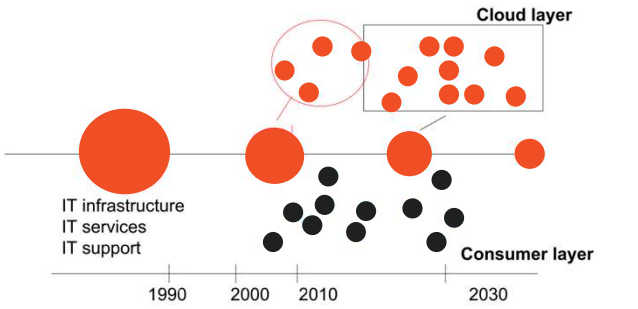
- **5G / WiFi 6: Faster, Better, Cheaper**
  - Bandwidth, Access, Intelligence
- **AV-over-IP (AVoIP)**
  - All AV Devices Managed on the Network
- **Passive Optical Networks (PON)**
  - Fiber for High Speed, Secure, Intra-Building-Wide Networks
- **Internet of Things (IoT) / Energy Efficiency Systems (EES)**
  - Real-Time BMS/EMS Analytics to help meet Sustainability Goals
- **AI: The Rise of Intelligent Building Systems**
  - AI-Enabled Smart Building
- **Li-Fi: Light-Fidelity Communications**
  - LED-Based Information Distribution for Way-Finding in Intra-Building Connections

SOURCE: APPA Facilities Manager 1/2020

THE FUTURE: SYSTEMS

- **Advanced Visualization Systems**
  - Capable of Displaying Large Data Sets at High Resolution
    - Multi-Touch-Enabled dvLED "Walls"
- **Hyflex / Team Collaboration**
  - Building Infrastructure & Systems Specs for Connectivity Inclusion/Equity
    - MS Teams "Front Row" 21x9 Format Screens
- **Multi-Device BYOD**
  - Planning Wi-Fi to support 4+ Devices/Person
- **Archiving Team Collaboration Sessions**
  - Providing for Access and Quick Recall of Data
    - Group Collaboration Tools (e.g., Miro, Mural, Alleo)
- **Consistent & Intuitive UX**
  - Maintaining Familiar Tactile Forms
- **Mixed Reality Simulation & the Metaverse**
  - Adopting/Adapting AR/VR/XR Systems for Enhanced Experiential Learning

FROM "ON PREMISE" TO "IN THE CLOUD"

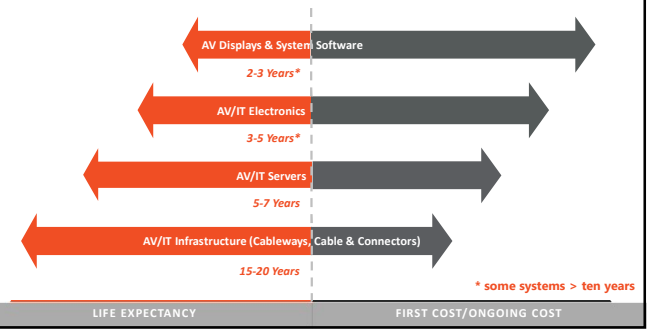


SOURCE: Richard Katz, EDUCAUSE

The slowest network your students will ever accept is the fastest they've ever experienced.

— Mark Valenti, CTS
CEO, The Sextant Group (retired)

FUTURE-PROOFING BUILDINGS FOR TECHNOLOGY



WAYS TO PLAN

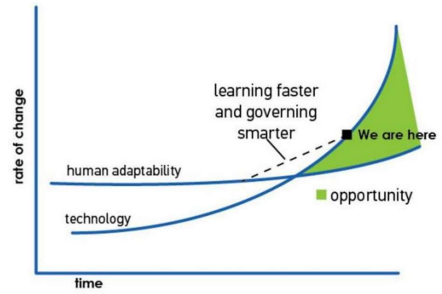
3 PLANNING TOOLS

SWOT	SOAR	SCENARIO
• Strengths • Opportunities • Weaknesses • Threats	• Strengths • Opportunities • Aspirations • Results	• Quantitative • Operational • Normative • Narrative
A realistic, fact-based, data-driven look at an organization, initiative, or industry.	A framework approach focusing on understanding the whole system including the voices of the relevant stakeholders	Foresight-based planning which considers a variety of possible or probable futures as a basis for long-term strategy development.

Your worst-case scenario is not even remotely the worst that can occur.

— Dr. Peter Linneman
Principal/Founder, Linneman Associates

ADAPTING TO THE RATE OF CHANGE



SOURCE: Thomas Friedman, *Thank You for Being Late*

APPRECIATIVE INQUIRY: THE 'SOAR' PLANNING FRAMEWORK

- Seeks out "best of what is" to imagine "what could be"
- Inquires into, identifies, and develops the best of your organization to create a better future
- Intended for discovering, understanding, and fostering innovation
- Based on the belief that human systems are made and imagined by those who live and work within them

- The Future
- Your Goals
- The Impact
- Your Strengths
- The Opportunities
- Your Aspirations
- The Results

SOURCE: SOAR - The Center For Appreciative Inquiry

7 STEPS OF TECHNOLOGY PLANNING

A BLUEPRINT FOR CHANGE

SOURCE: UniversityBusiness.com

7 STEPS OF AGILE TECHNOLOGY PLANNING

THE FUTURE?: What's Next?

Exploring the potential and relevance of new and developing technologies designed to improve engagement and outcomes.

- Tech Trends Presentations
  - Gartner Group
  - Dan Burris
  - Ray Kurzwell
  - AVIXA
- Precedent Project Studies
- Product & Systems Research
- Technology Product Demonstrations
- Peer Institutions Benchmarks & Tours

01

02 YOUR GOALS?: WHAT'S IMPORTANT?

03 THE IMPACT?: WHAT GETS TRACKED?

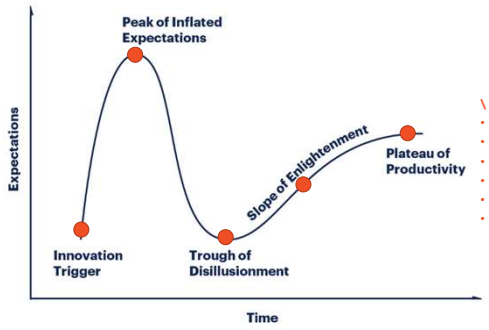
04 YOUR STRENGTHS?: WHAT'S WORKING?

05 THE OPPORTUNITIES?: WHAT COULD BE?

06 YOUR ASPIRATIONS?: WHAT SHOULD BE?

07 THE RESULTS?: WHAT WILL BE?

GARTNER GROUP: TECH HYPE CYCLE



IN THE LAST DECADE...

- Streaming Media
- Wearable Tech
- Conversational Control
- 5G LTE Networks
- AR/VR Simulation
- AI & Machine Learning

SOURCE: www.gartner.com/

7 STEPS OF AGILE TECHNOLOGY PLANNING

01 THE FUTURE: WHAT'S NEXT

02 GOALS: What's Important?

Define the current state & strategic organizational goals.

- Org & Tech Mission/Vision/Values
- Existing Tech OKRs/KPIs
- What is the purpose of our strategic technology plan?
- What impact will the plan have if enabled?
- What resources will be needed to implement the plan that do not currently exist?

03 THE IMPACT: WHAT GET'S TRACKED?

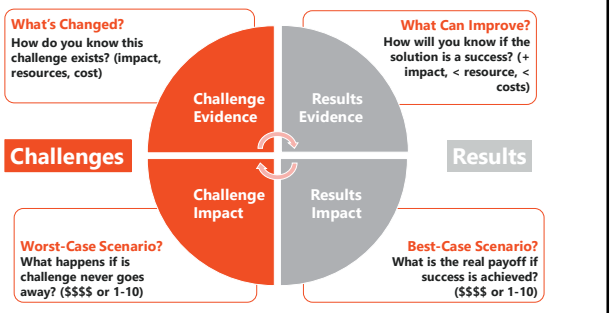
04 YOUR STRENGTHS: WHAT'S WORKING?

05 THE OPPORTUNITIES: WHAT COULD BE?

06 YOUR ASPIRATIONS: WHAT SHOULD BE?

07 THE RESULTS: WHAT WILL BE?

QUESTIONS TO ASK YOUR STAKEHOLDERS



SOURCE: Mahan Khalsa, *Let's Get Real or Let's Not Play*

7 STEPS OF AGILE TECHNOLOGY PLANNING

01 THE FUTURE: WHAT'S NEXT?

02 YOUR GOALS: WHAT'S IMPORTANT?

03 THE IMPACT: What Get's Tracked?

What metrics do we or should we use to measure success?

- Usage Statistics (Applications/Hardware)
- Maintenance Break/Fix Statistics
- User Satisfaction Surveys
- QoS Agreements
- Staffing Resources (+/-)
- CapX/OppX $$$ (+/-)

04 YOUR STRENGTHS: WHAT'S WORKING?

05 THE OPPORTUNITIES: WHAT COULD BE?

06 YOUR ASPIRATIONS: WHAT SHOULD BE?

07 THE RESULTS: WHAT WILL BE?

QUESTIONS TO ASK YOUR TECHNOLOGY TEAM

- **RISK**
  - Which technology services/resources are needed to mitigate/reduce risk to our (current & future) campus' initiatives & stakeholders?
- **INEFFICIENCY**
  - Which technology services/resources are needed to reduce our organizational inefficiencies?
- **EXPENSE**
  - Which technology services/resources are needed to reduce costs (capital & operational)?
- **STRESS**
  - Which technology services/resources are needed to reduce systemic stress in our organization?

SOURCE: Ackert Inc.

7 STEPS OF AGILE TECHNOLOGY PLANNING

01 THE FUTURE: WHAT'S NEXT
02 YOUR GOALS: WHAT'S IMPORTANT?
03 THE IMPACT: WHAT GETS TRACKED?

04 YOUR STRENGTHS: What's Working?

Describe examples that show our technology at its best.

- What can we build on?
- What is good? What works well?
- What are we most proud of?
- How do we use our strengths to get improved results?
- What can we do or provide that is unique for your faculty and students?

05 THE OPPORTUNITIES: WHAT COULD BE?
06 YOUR ASPIRATIONS: WHAT SHOULD BE?
07 THE RESULTS: WHAT WILL BE?

7 STEPS OF AGILE TECHNOLOGY PLANNING

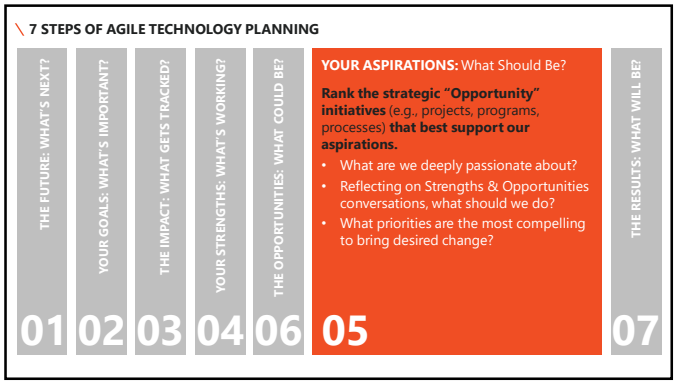
01 THE FUTURE: WHAT'S NEXT?
02 YOUR GOALS: WHAT'S IMPORTANT?
03 THE IMPACT: WHAT GETS TRACKED?
04 YOUR STRENGTHTS: WHAT'S WORKING?

05 THE OPPORTUNITIES: What' Could Be?

Describe applications or technologies that could contribute to improved outcomes if there were no resource limits.

- How do we capitalize on new trends & developments?
- How to best meet the needs of our students, faculty, & community?
- What are the top opportunities on which we should focus our efforts?
- What new or added resources do we need?

06 YOUR ASPIRATIONS: WHAT SHOULD BE?
07 THE RESULTS: WHAT WILL BE?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THE OPPORTUNITIES: WHAT COULD BE?
06
YOUR ASPIRATIONS: What Should Be?
Rank the strategic "Opportunity" initiatives (e.g., projects, programs, processes) that best support our aspirations.
• What are we deeply passionate about?
• Reflecting on Strengths & Opportunities conversations, what should we do?
• What priorities are the most compelling to bring desired change?
05
THE RESULTS: WHAT WILL BE?
07

7 STEPS OF AGILE TECHNOLOGY PLANNING
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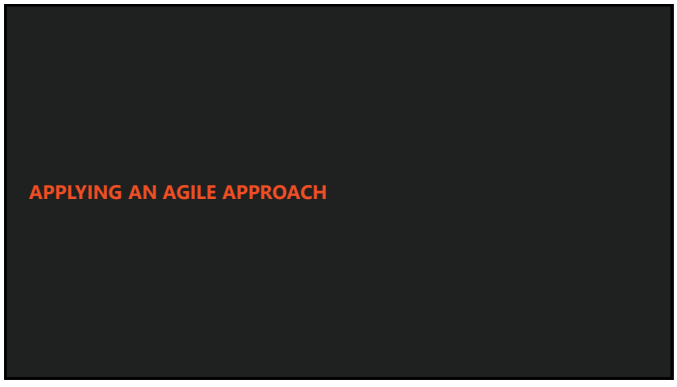
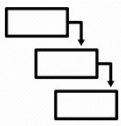
THE RESULTS: What Will Be?
Considering Steps 1-6, what meaningful actions would indicate that we are on track to achieving our goals? Short-Term (< 1 year) v. Long-Term (< 3 years)
• How do we define success for our technology-related initiatives?
• How do we know we are succeeding?
• What resources are needed to implement priority strategies?
• What governance structure is needed for continual technology planning?
07


APPLYING AN AGILE APPROACH

AGILE v. WATERFALL PROJECT MANAGMENT



AGILE PM

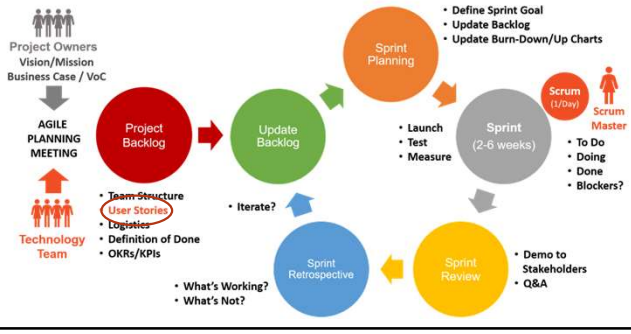
- Continuous cycles
- Small, high-functioning, collaborative teams
- Multiple methodologies
- Best for flexible/continuous evolution
- Encourages Customer Involvement

WATERFALL (GANTT) PM

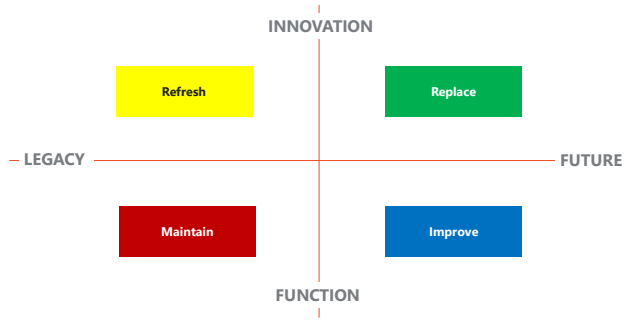
- Sequential/Linear stages
- Upfront planning & in-depth documentation
- Contract negotiation
- Best for long-term, unchanging projects
- Close project management involvement

PUTTING AGILE TO WORK: DEFINING THE USER STORY

AGILE PROJECT FRAMEWORK



THE AGILE TECHNOLOGY CONTINUUM



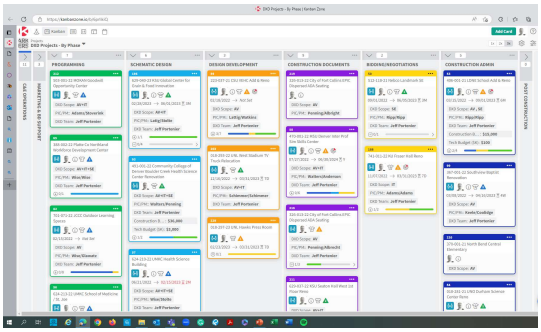
AGILE KANBAN TRACKING MODEL

BACKLOG	PRIORITY	IN PROGRESS	TESTING	DONE
Project 16	Project 12	Project 9	Project 6	Project 4
Project 15	Project 11	Project 8	Project 5	Project 3
Project 14	Project 10	Project 7		Project 2
Project 13				Project 1

KEY

Maintenance | Update | Improvement | Replacement

MY DASHBOARD



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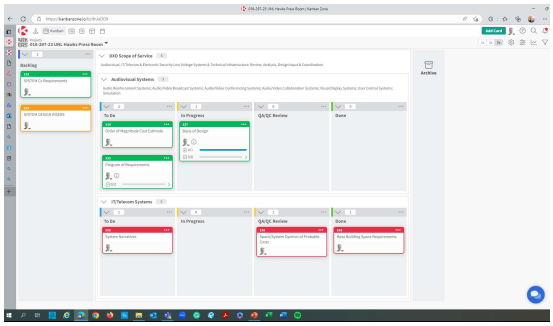

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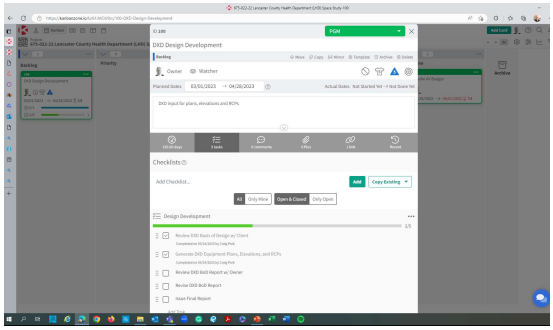


> *Done is better than perfect.*
>
> — Mark Zuckerberg
> CEO, Meta

> *An idea is just an idea until it is put into action.*
>
> — Buddha

AGILE MANAGEMENT PLATFORMS (+50 more)

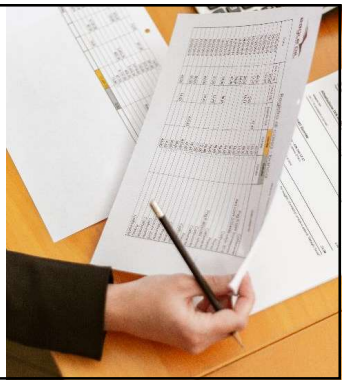
AIRTABLE · AHA! · ASANA · BASECAMP · JIRA

KANBAN ZONE · MONDAY · SMARTSHEET · TRELLO · WORKFRONT

SOURCE: www.martech5000.com

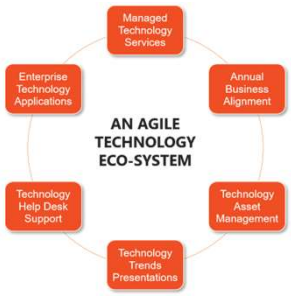
OBSTACLES TO AGILE

- Traditions / Silos
- Need for Cross-Training
- Hard to Pivot ("The Work Doesn't Stop!")
- Alignment with Vision/Mission
- Individual Staff Skills / Motivation
- Support from C-Suite

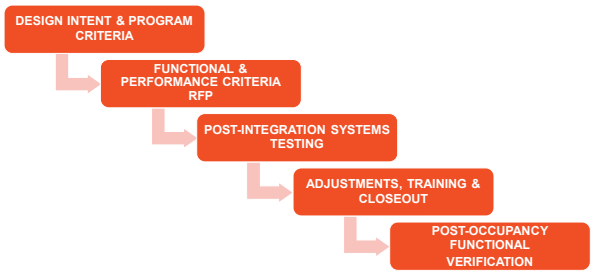


CREATING AN AGILE TECHNOLOGY ECO-SYSTEM

- Managed Technology Services
- Annual Business Plan Alignment
- Technology Asset Management
- Technology Trends Presentations
- Technology Help Desk Support
- Enterprise Technology Applications



TECHNOLOGY COMMISSIONING (Cx) & RETRO-COMMISSIONING (RCx)



IN SUMMARY

PLANNING FOR WHAT COMES AFTER WHAT COMES NEXT

IT'S LIKE PAINTING THE GOLDEN GATE BRIDGE

The future is already here...
It's just not that evenly distributed.

— William Gibson
Author, Neuromancer

DIALOGUE / Q&A

THANK YOU!

- **CRAIG PARK,** FSMPS, ASSOC. AIA
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