


ENGINEERING MANAGEMENT INSTITUTE

The Three Keys to Successful Project Management Including Team Communication Strategies

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Presented for:
Center for Astrophysics Harvard & Smithsonian

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“Nothing is less productive than to make more efficient what should not be done at all.”
Peter Drucker

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Overview

Communication



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Purpose and Learning Objectives


Purpose: To provide you with fundamental Project Management concepts and strategies. In this session, you will learn:

- How to use a framework of questions to clearly identify the project scope,
- Scheduling basics including the rules for effective scheduling,
- Project cost estimating, a mission critical task for all project managers, and
- Effective ways to communicate across a team of talented professionals.

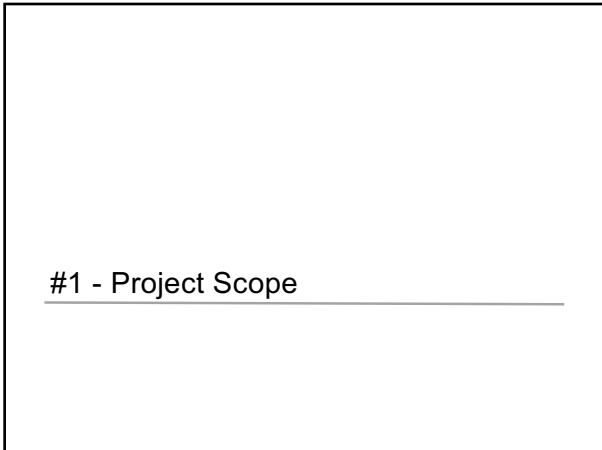
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Introduction – Anthony Fasano, PE

- B.S. & M.S. in Civil Engineering
- PE license in NY and NJ
- Found success at a reputable firm at a very young age
- Attended iPEC – the top ranked executive coaching school in the world
- Wrote the best-selling book **Engineer Your Own Success** and started providing career coaching and speaking services to engineers



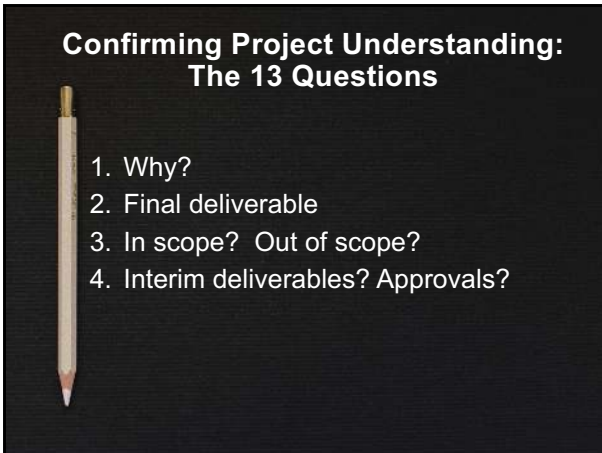
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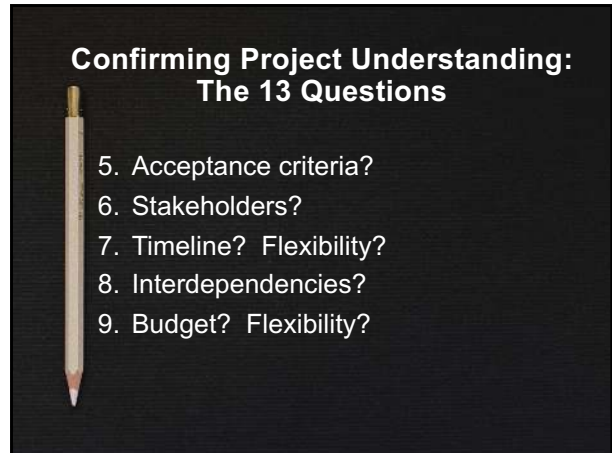
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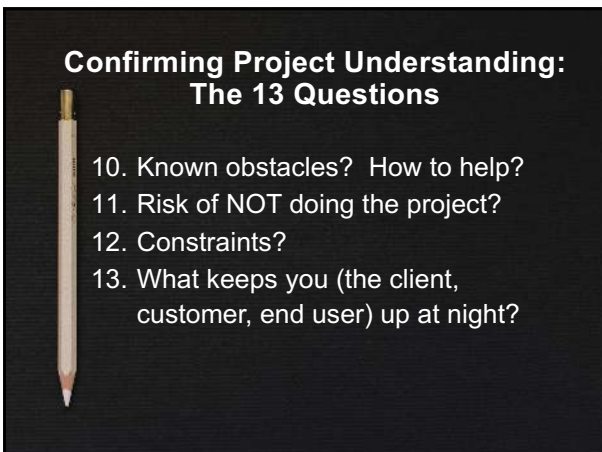
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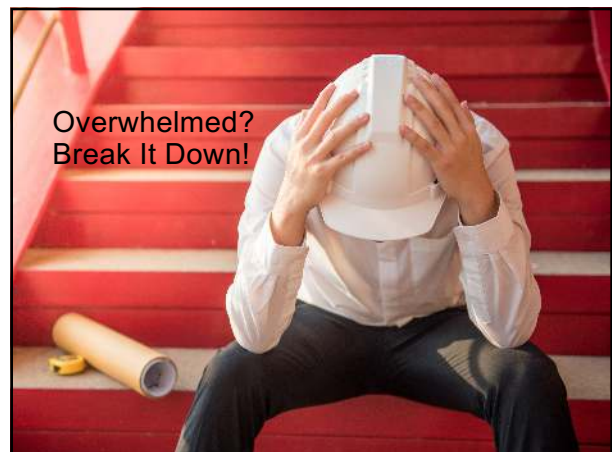
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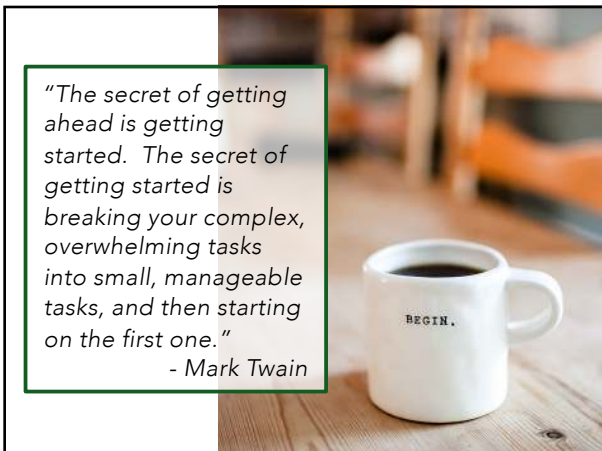
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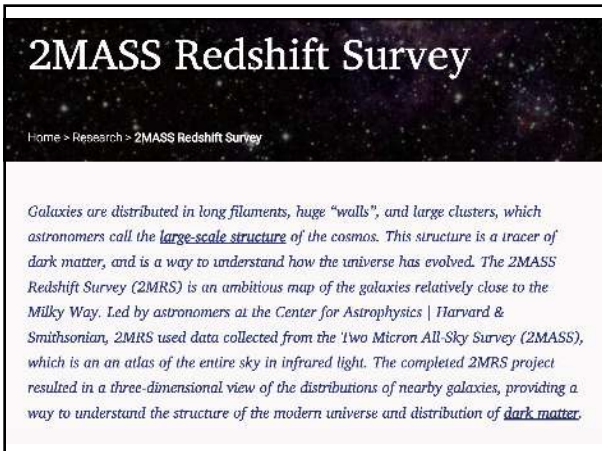
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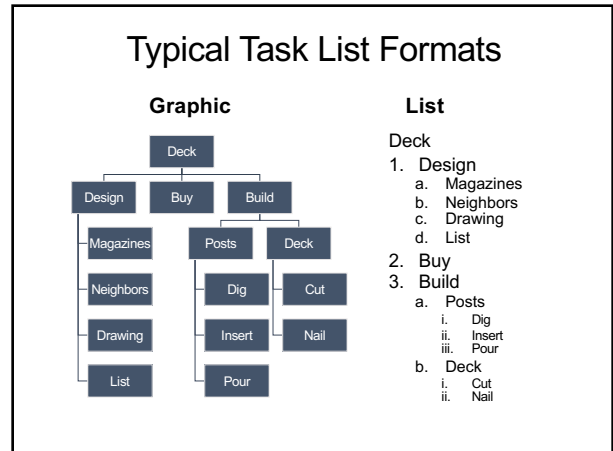
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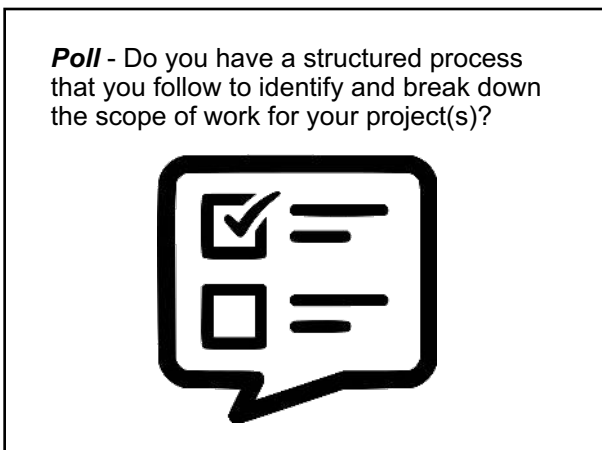
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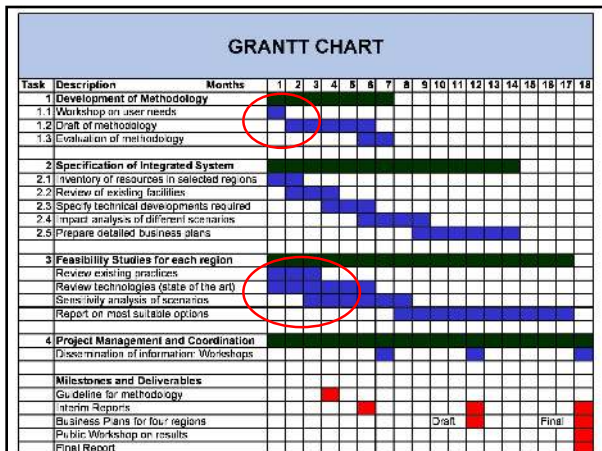
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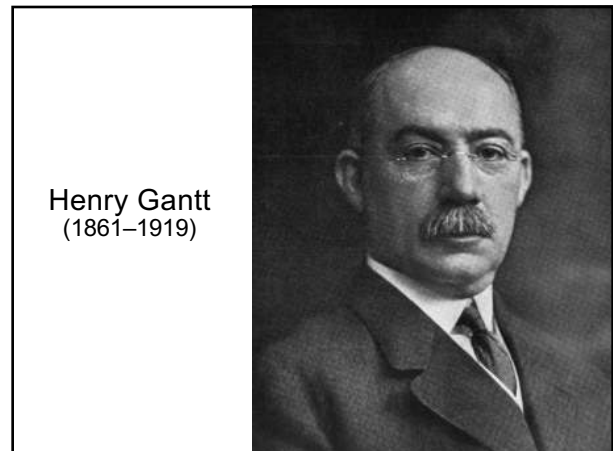
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Anticipated Project Schedule

Milestone	Due Date
Contract Award	March 2021
Project Kick-off Meeting	April 2021
Open House	September 2021
Structure Selection Report & Preliminary Design Set	October 2021
Draft CLOMR (<u>Conditional Letter of Map Revision</u>)	January 2022
Final Design Set	March 2022
Construction Bid Set	May 2022

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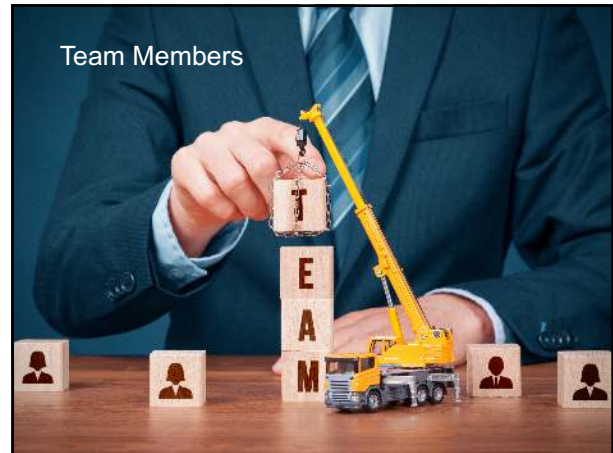
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Other Projects



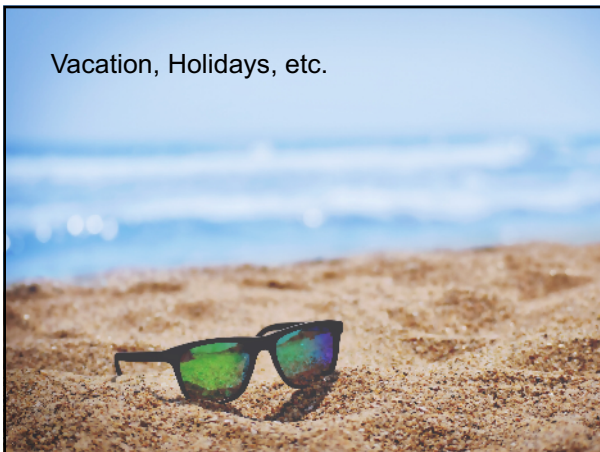
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Team Members



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Vacation, Holidays, etc.



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Sufficient Time



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Stakeholder's Milestones

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What did I forget?

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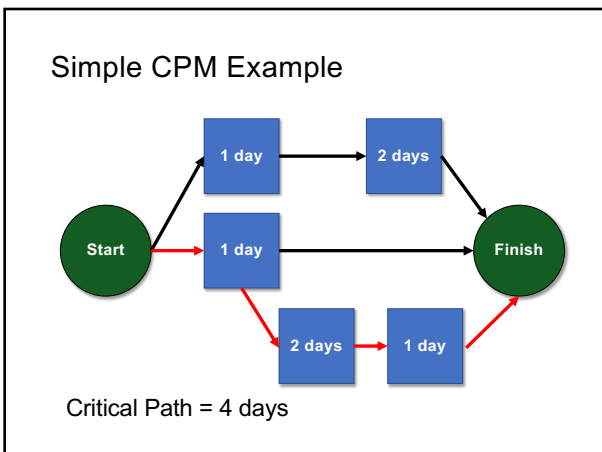
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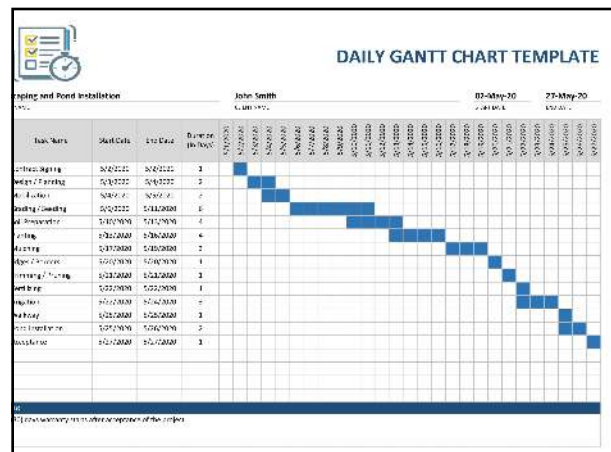
Critical Path Method (CPM)

- LONGEST Path
- SOONEST Completion
- Earliest and Latest
- Zero or Negative Total Float
- If **CRITICAL PATH** is delayed, then the project is delayed

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Can't Meet the Target Date?

1. Fast-track
2. Re-order tasks
3. Add resources (crash)



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Software may be helpful

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#3 - Project Cost Estimating

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Elements of Cost Estimates

- Labor
 - Materials
 - Subcontractors
 - Equipment
 - Software
 - Hardware
 - Facilities
 - Contingency
- Direct costs: THIS project
 - Indirect costs: not specific to a project, firm-wide, not billable to a project

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What makes a good cost estimate?

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Guidelines for a Good Cost Estimate

1. Get estimates from those who will actually do the work!!
2. "Pessimistic" for cost; "optimistic" for duration
3. Rely on historical data
4. Document your assumptions
5. Ground-truth your estimate
6. Take another look—and get a sign-off!
7. NEVER let anyone decrease your proposal price without your knowledge!

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Avoiding Cost Estimating Pitfalls

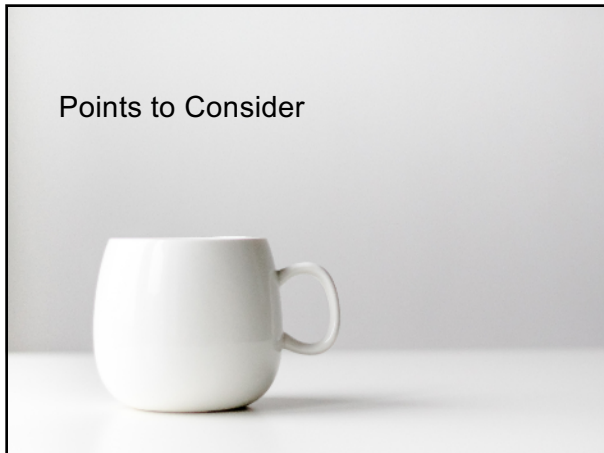
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Cost Estimating Pitfalls

1. Inexperience
2. Lack of definition
3. Complex project
4. Unavailable staff
5. Not considering risks
6. Hasty estimates
7. Single number instead of ranges
8. Cinderella's sisters

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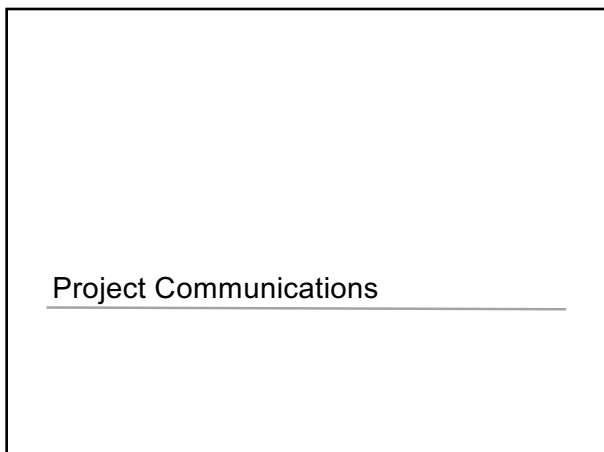
Points to Consider

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1. Have we done...
2. Have we worked...
3. Has asked the client about the budget...
4. Are there any unallowable costs?
5. Team members
6. Pricing type

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Project Communications

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Taming the Meeting Beast

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Meeting Process

Before		During		After
1. Plan	2. Start	3. Conduct	4. Close	5. Follow Up
<ul style="list-style-type: none"> • Purpose • Participants • Methods • Time-indexed agenda 	<ul style="list-style-type: none"> • Check in • Review agenda • Ground rules • Parking lot 	<ul style="list-style-type: none"> • 1 item at a time • Stay on time • Focus 	<ul style="list-style-type: none"> • Summarize decisions • Review action items • Clear parking lot • Agenda for next mtg • Set next mtg • + / Δ • Thank 	<ul style="list-style-type: none"> • Document (minutes) ASAP • File notes, etc. • Do action items

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Example Meeting Agenda

Subject: _____ Date: _____
 Purpose: _____
 Location: _____
 Start: _____ End: _____ Total: _____
 Attend: _____
 Attend: _____ X = 15 min, X*2 = 30 min

Planned Outcome(s)

	Agenda Item	Time	Person Responsible
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Person Responsible

1.	
2.	
3.	
4.	

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Example Kick-off Meeting Agenda

CALL-IN NUMBER IF YOU CANNOT ATTEND IN PERSON: _____ (Date) _____
 _____ (Time) _____
 _____ (Location)

Client: _____ Project Number: _____
 Project Manager: _____ Note taker: _____
 Timekeeper: _____
 Attendees: _____

House rules
 House links

AGENDA ITEMS

Topic	Presenter	Time allotted
Project scope and objectives		
Project budget		
Project deliverables		
Team contact(s)		
Process for scope changes		
Project meeting schedule		
Project technical issues		
Project contract issues		
Team sensitivities		
House rules		
House links		
Action items		
Review of next meeting		

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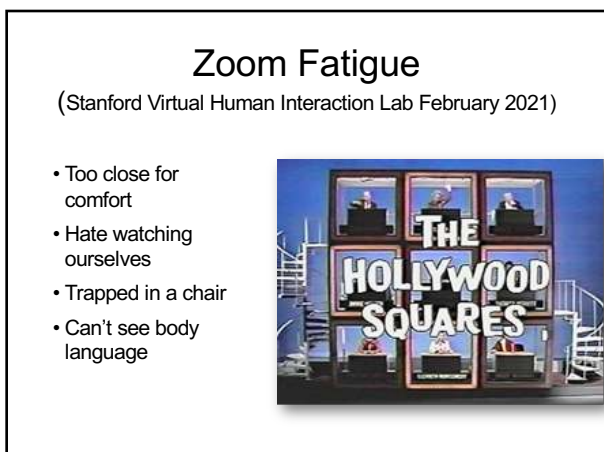
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Keeping Projects Moving Forward in Our Virtual Reality

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Technology for Tasks

- SmartSheet
- Loom
- Miro

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Loom
(for those who hate long emails)

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Miro.com Online Whiteboard

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Remote Teams:

- Can't socialize
- Can't get to know each other
- New employees??

Result?

- Isolation
- Loneliness
- Reduced productivity

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Leverage Technology to Bridge the Distance

☐ Lots of ideas at VirtualTeamIntelligence.com

- Virtual Team Initiation Meeting
- Effective Communication Tips for Virtual Teams
- Virtual Team Building Games

☐ MindTools.com

☐ *The Big Book of Virtual Team Building Games*



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Overview

Communication



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