

NEXT SESSION

IT'S ALL ABOUT THE USER! UX ISN'T JUST SOME INFORMAL ACTIVITY

Andrew Boyle & Kim Donovan

This session will be
recorded.

University of Maryland
Project Management
Symposium



PROJECT MANAGEMENT
CENTER FOR EXCELLENCE

A.J. CLARK SCHOOL OF ENGINEERING
Civil & Environmental Engineering Department





It's All About the User!

UX Isn't Just Some Informal Activity

Andrew Boyle & Kim Donovan
2023 Project Management Symposium

"A man who dares to waste one hour of life has not discovered the value of life." – Charles Darwin

Agenda

- | | | |
|----------|---|--|
| 15 mins | { | • Introductions |
| | | • Overview |
| | | • What is and is NOT UX |
| | | • Isn't UX Just Common Sense? Yes... and No... |
| | | • Common UX Frameworks |
| | | • Differentiated UX Activities |
| 15 mins | { | • Extending the Project Management Construct to Amplify the Impact of UX |
| | | • Case Study |
| | | • Summary |
| 10 mins | { | • Q&A |
| Forever! | { | • We All Fight 495 Traffic |

*“Experience is the name everyone gives to their mistakes”
– Oscar Wilde*

Who Am I

(not the Unix command ‘whoami’!)



Andrew ‘Andy’ Boyle

Distinguished Digital & Cybersecurity Technologist
Booz Allen Hamilton

[AWS-CCP, AWS-SAA, CEH, CISSP, FinOps, NN/g MUXC, PMI-ACP, PMP, PRINCE2, SAFe SPC]

- 30+ years digital and cybersecurity experience
- Support to Government and Fortune 100 clients
- Advocate for adoption and use of standards

WHOAMI(1)	General Commands Manual	WHOAMI(1)
NAME		
whoami – display effective user id		
SYNOPSIS		
whoami		
DESCRIPTION		
The whoami utility has been obsoleted by the id(1) utility, and is equivalent to “ id -un ”. The command “ id -p ” is suggested for normal interactive use.		
The whoami utility displays your effective user ID as a name.		
EXIT STATUS		
The whoami utility exits 0 on success, and >0 if an error occurs.		
SEE ALSO		
id(1)		

 Boyle_Andrew@bah.com

 <https://www.linkedin.com/in/andrew-boyle-b74299/>

*“Let chaos reign, then rein in chaos” – Andrew Groves,
former CEO Intel Corporation*

Who Am I

Kim Donovan

Information Technology Project Manager

Booz Allen Hamilton Principal

[CPA, AWS Cloud Practitioner, Product Management Cert, CDFM]



- 20+ years of audit, risk, process, and analytics experience
- Led 50+ Product Development teams on Advana, DoD's enterprise data management and analytics platform
- Focus on integrating innovative tech with mission



Donovan_Kimberly@bah.com



<https://linkedin.com/in/kimberly-donovan-a669542>

Quiz!

QUESTION: What is the general failure rate range of software projects?

- A) 10-40%
- B) 30-60%
- C) 50-80%**
- D) 70-90%

ANSWER: D) 50-80%. Standish Group's Annual CHAOS 2020 Report noted that 66% of technology projects (based on analysis of ~50k projects globally) failed.

Overview

*“When eating an elephant, take one bite at a time.”
– Creighton Abrams*

- PM frameworks excel at providing the processes to maximize the efficiency in executing the deliveries for a project
- Agile methodologies = better software, faster, better security, and support
- However, the failure rate of software projects ranges between **50-80%**
- The **biggest source of the failures is not meeting user needs**
- User Experience (UX) is the formal approach to bring user needs into the initial requirements as well as throughout the entire project
- PM processes can tailored to support UX ... but avoid the landmines!

*We have optimized for building solutions... but all too often they are the **WRONG solutions!***

“If language is not correct, then what is said is not what is meant; if what is said is not what is meant, then what must be done remains undone” – Confucius

What is and is NOT UX

“User Experience (UX) encompasses all aspects of the end-user’s interactions with the company, its services, and its products” [NN/g definition of UX]

- UX is **NOT** User Interface (UI) (although UI is part of UX)
- Usability is **NOT** UX (although usability is part of UX)
- UX **NEEDS** to be a significant factor for PMs

PMs ensure the project is executed & delivered ...
UX helps PMs ensure it is the **RIGHT** project

"No matter how smart you are, or how long you ponder, you can never be sure how a watch works unless you look inside" – Einstein

Isn't UX Just Common Sense?

- Yes, anyone *could* do UX, but they won't do it *correctly*
- Just like PM ...
 - there are defined frameworks and processes
 - there are industry best practices and lessons learned
 - there is a mix of 'art and science' (yrs of experience!)

*Don't devalue the impact or profession of UX by falling into the common trap of 'it is just common sense' ... many **people have that same incorrect sentiment about Program/Project Management!!!***

UX Bachelors & Masters Degrees

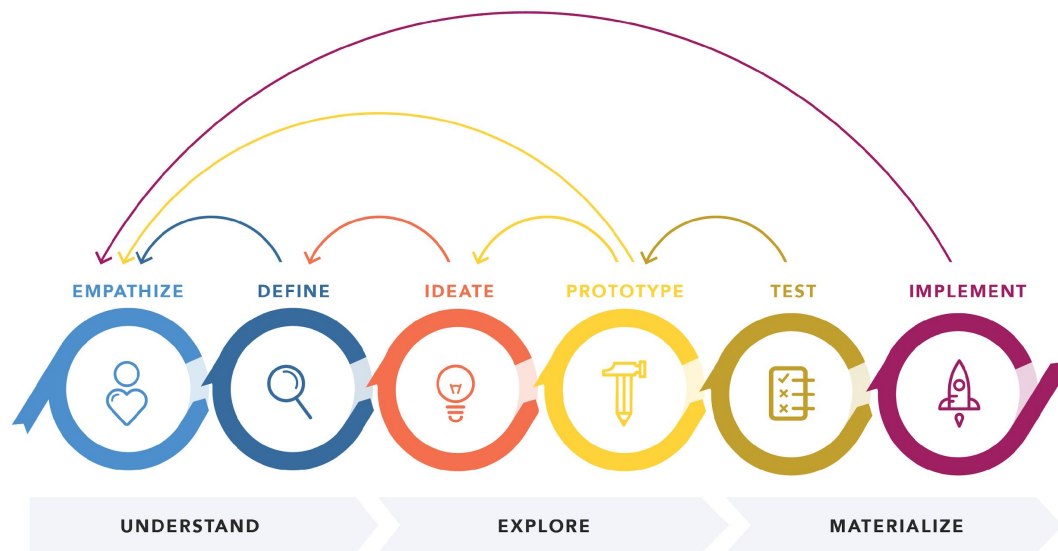
- Bachelors, User Experience, Arizona
- Masters, Human Factors Engineering, Tufts
- Masters, Informatics & Design, Rutgers
- Masters & PhD, Human Centered Computing, Univ of Maryland
- ...

UX Certifications

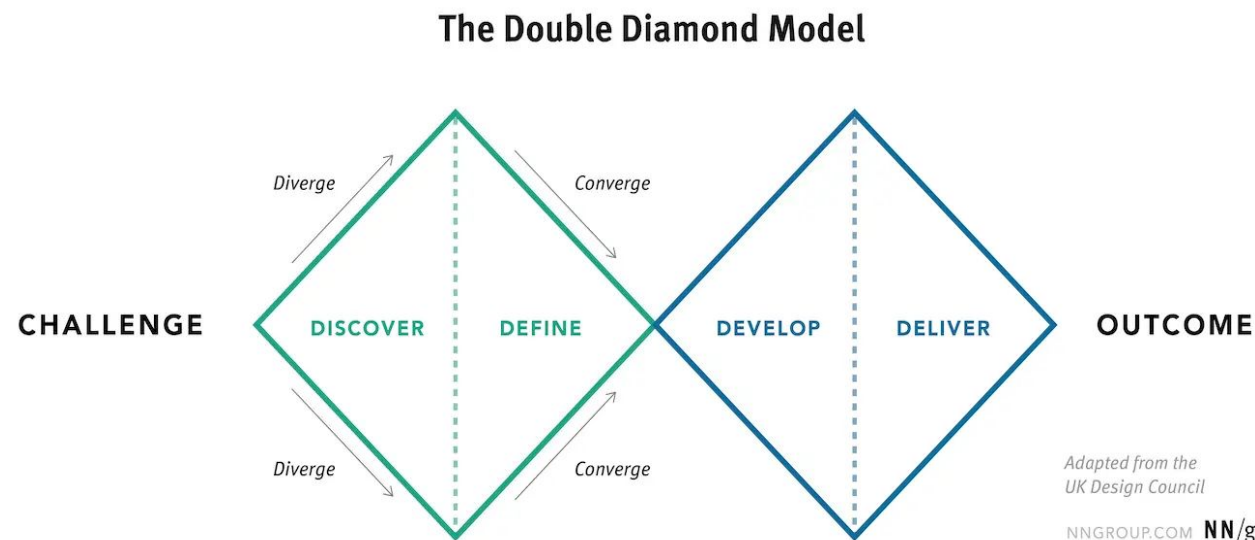
- Bentley University UX Certificate
- Human Factors International
- Nielsen Norman Group (NN/g)
- ...

"When you finished changing, you're finished" – Bill Gates

UX Frameworks - Look a lot like PM, right?



DESIGN THINKING 101 NNGROUP.COM

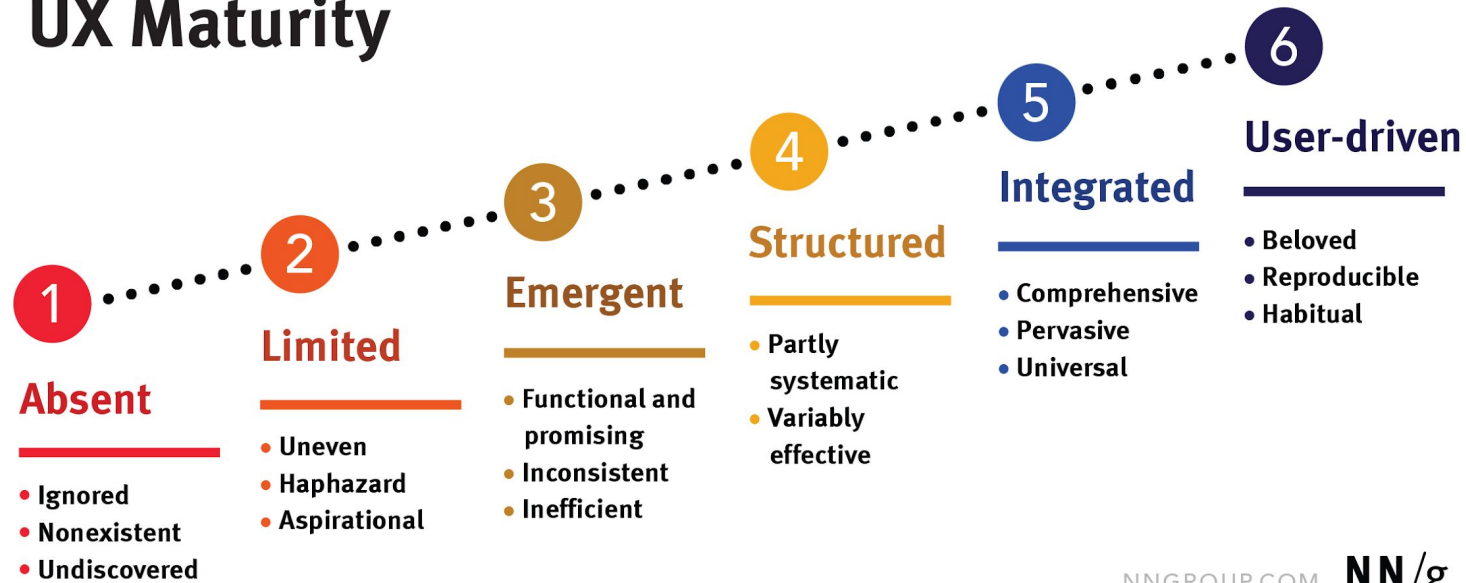


Adapted from the
UK Design Council

NNGROUP.COM NN/g

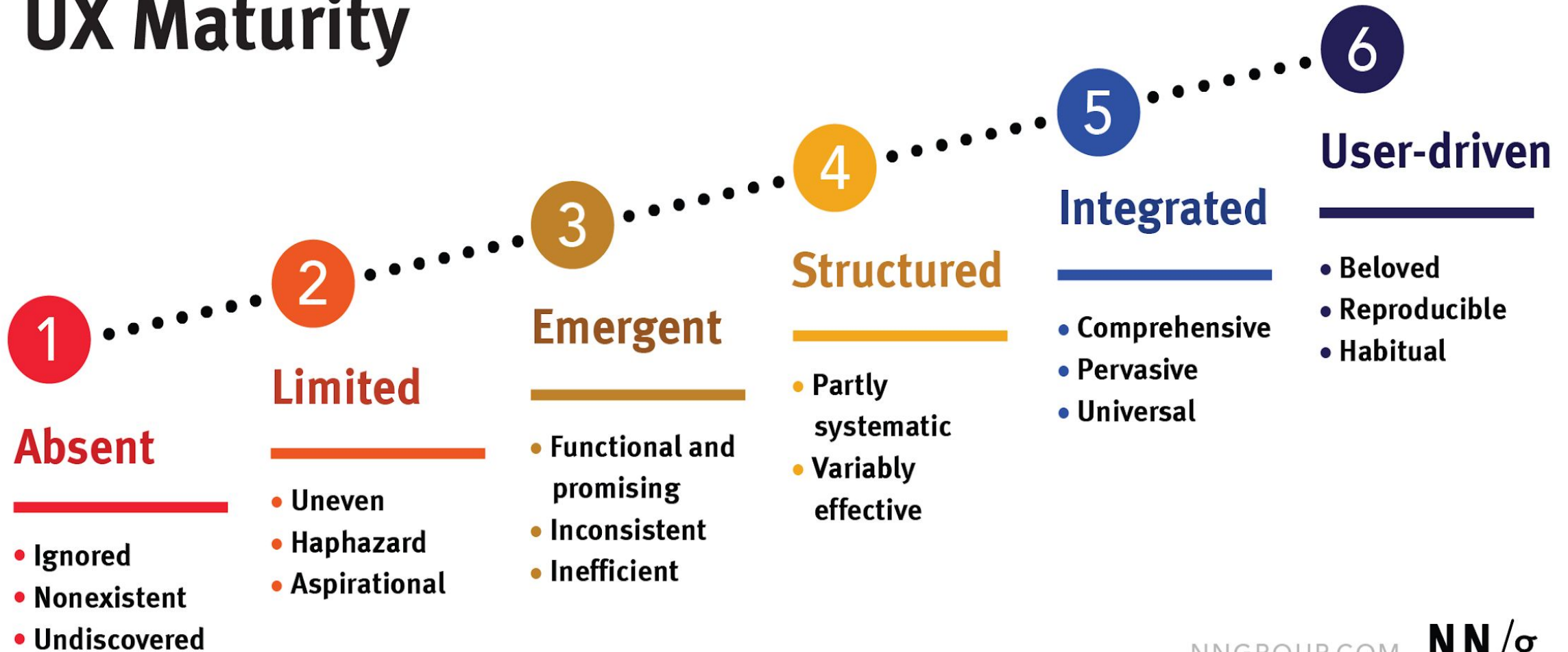
UX Maturity Levels

Stages of UX Maturity



*"Tell me and I'll forget. Show me and I may remember.
Involve me and I will learn" – Benjamin Franklin*

Stages of UX Maturity



"If your actions inspire others to dream more, learn more, do more, and become more, you are a leader" – John Quincy Adams

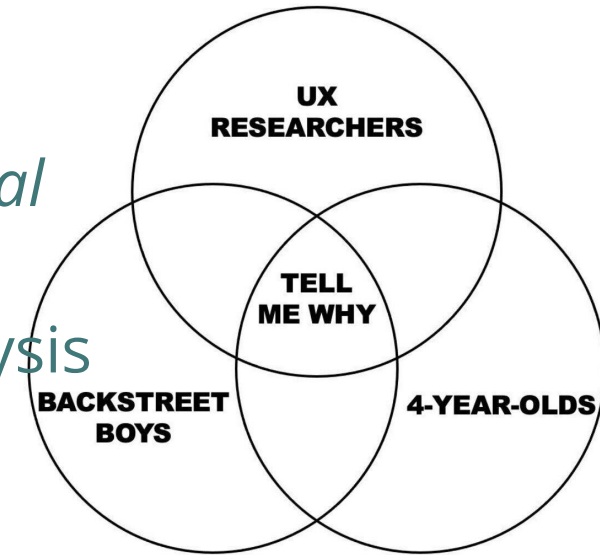
Differentiated UX Activities

UX Design

- Field studies
- Longitudinal studies
- Interviews
- Personas
- **User stories**
- **Journey mapping**
- **Paper prototypes**
- **Wireframes**
- ...

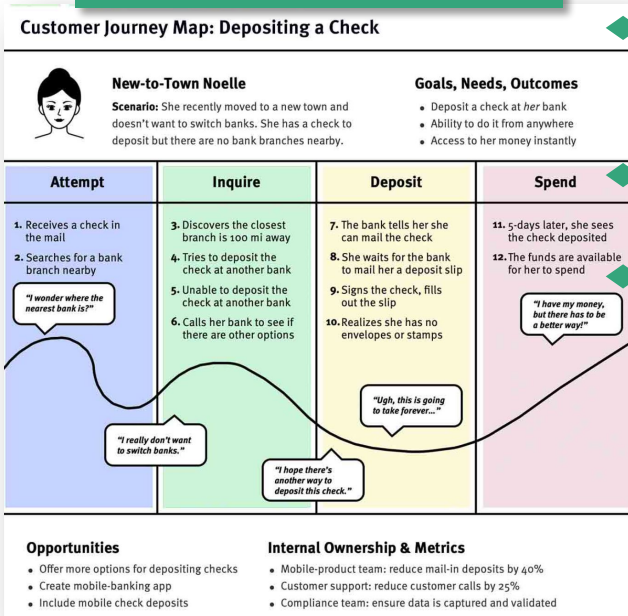
UX Management (Yes, this is a *real* thing!)

- Design/develop trade-off analysis
- Engagement strategy
- Defining and tracking metrics
- Establishing proper UX execution tempo
- Monitoring UX industry best practices
- Decide on tool selections
- Communicate with key stakeholders



Example - Journey Mapping & User Stories

Journey Mapping



User Perspective

Steps to complete a goal

Thoughts, emotions, channels, devices used

Product Perspective

Guides planning and implementation of features and functionality

User Stories connect what we uncover in customer journey mapping to what we're doing to intentionally do about in the product.

User Story Mapping

User-Story Map: Mobile App Feature for Depositing Checks

NNGROUP.COM NN/g

1. Activities:

High-level tasks users can do in the digital product

2. Steps:

Steps users go through to complete the activity above

3. Details:

Granular, discrete interactions to complete the step above



Example – Wireframes & Paper Prototypes

A paper representation of a digital product used to help realize concepts and test designs.

A rough outline usually presented with gray lines, boxes, colors and placeholders, similar to a blueprint.

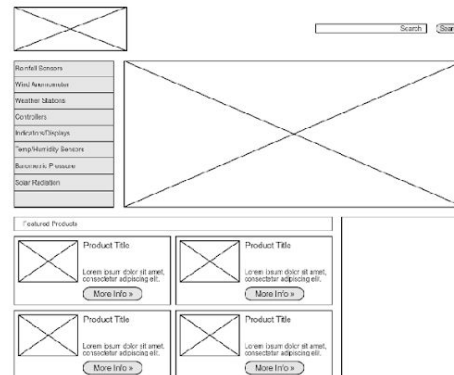
A clickable wireframe that demonstrates workflow and placement of components

An interactive build out which presents core content, graphics, and some functionality.

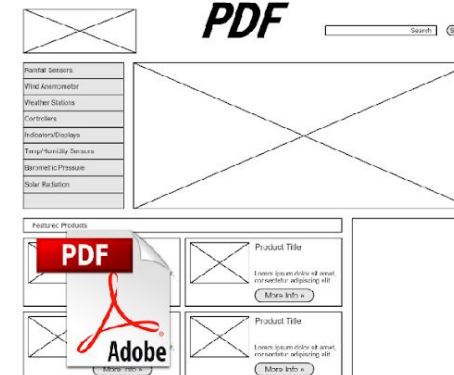
Paper Prototype



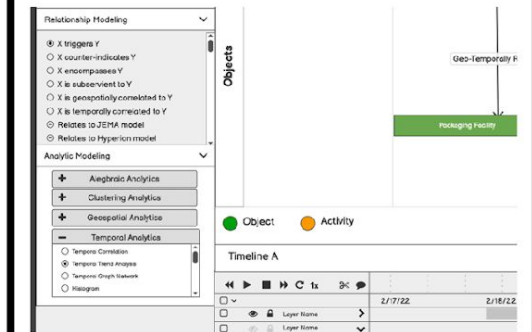
Wireframe



Interactive Wireframe PDF



Interactive Prototype Sandbox



- + Rapid Iterations
- + Early Feedback
- + Fast to Build

- + Core Functionality First
- + Easy to Communicate
- + Unconstrained Design

- + Easy to test
- + First usability feedback

Quiz!

QUESTION: For a typical system, what is the ideal number of users to gain UX feedback from?

A) 5

B) 10

C) 25

D) 100



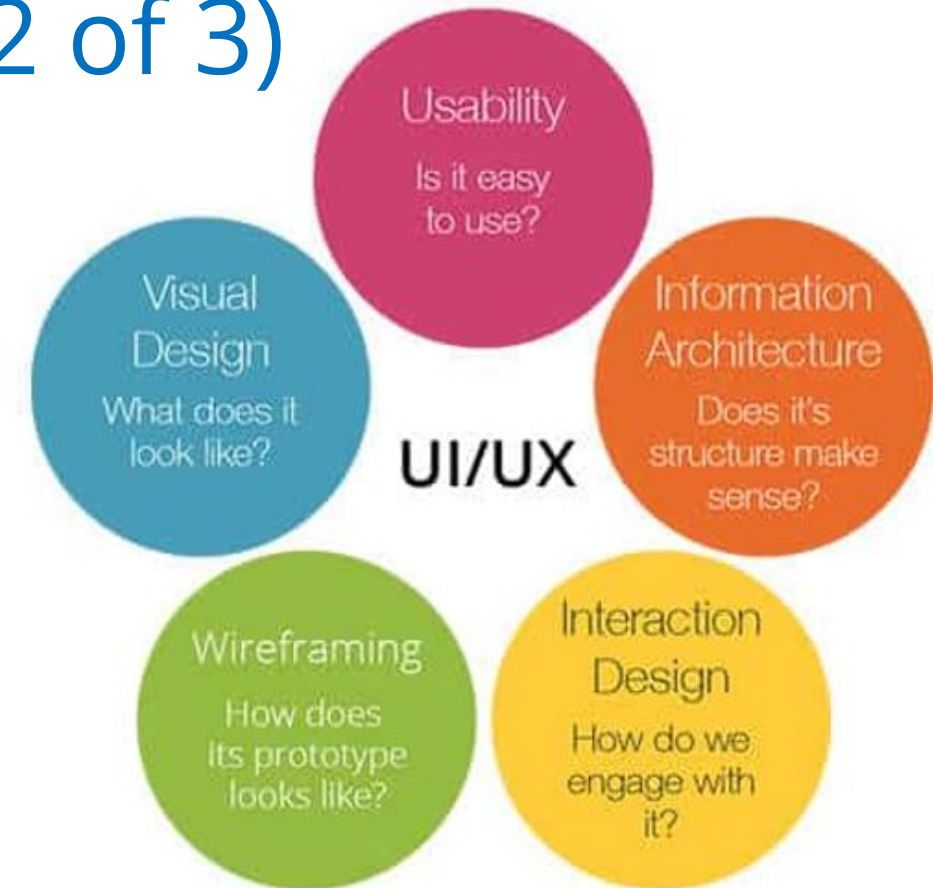
ANSWER A) 5. Research has shown marginal rate of return on getting feedback from more than 5 users (and that nearly 100% of feedback is gained with only 15 users). Highly complex systems, or those with very distinct user groups, may need feedback from ~5 users in each user/functional group

Extending the Project Management Construct to Amplify the Impact of UX (1 of 3)

- Software development methodologies (e.g., Agile) often exclude/delay UX
 - Why should Project Managers care about UX?
 - PMs sit at the intersection of business, technology, design, and serving user needs
 - Today, customers won't settle for mediocre product experiences
 - A user's impression is formed rapidly and becomes difficult to change
- Know Where You're Going: A unified UX plan helps PMs guide**
App developers have a different idea of the solution and state they're building developers toward the shared destination

Extending the Project Management Construct to Amplify the Impact of UX (2 of 3)

- What UX components should Project Managers consider?
 - Information Architecture - “Data Model”
 - Interaction Design – Interface design and navigation plan, often including Wireframes
 - Visual Design – make the application POP!
 - Usability Testing – verify solution meets users’ needs



Extending the Project Management Construct to Amplify the Impact of UX (3 of 3)

How can Project Managers incorporate UX into delivery?

- ✓ Integrate design and development teams and use consistent terminology
- ✓ Hold requirement, feature, and priority discussions
- ✓ Unify team around “personas,” aka user architypes
- ✓ Use design specialists to create blueprints and consider using UX Prototypes - clickable, interactive digital mockups

Software Design and Development Process with UX Involved



“Companies must embrace design holistically and early in the process rather than seeing it as a small tool that fits in later.” – McKinsey & Co

Software Design and Development Process with UX Involved

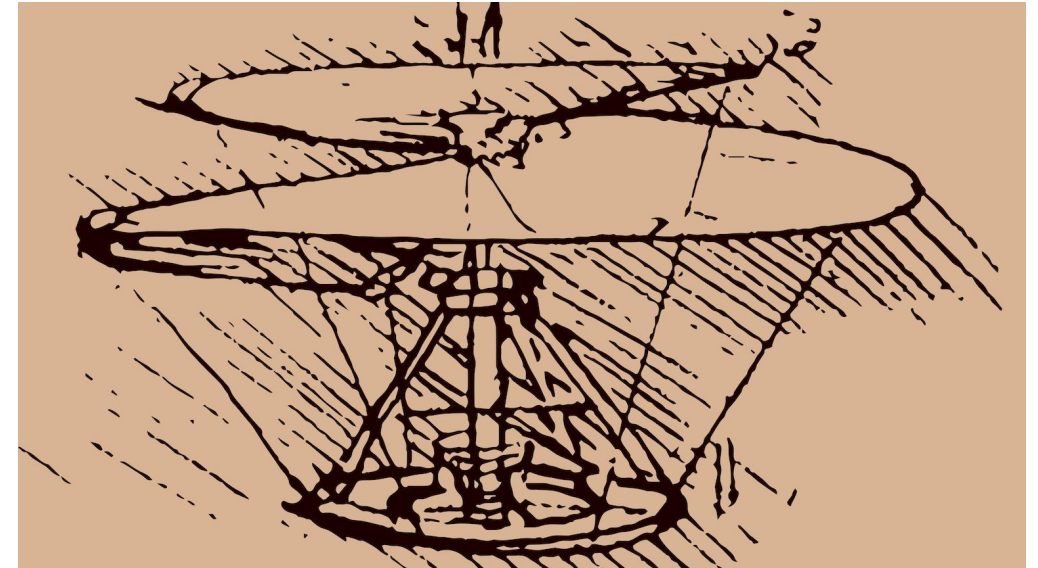


Quiz!

QUESTION: Who said, “simplicity is the ultimate sophistication”?

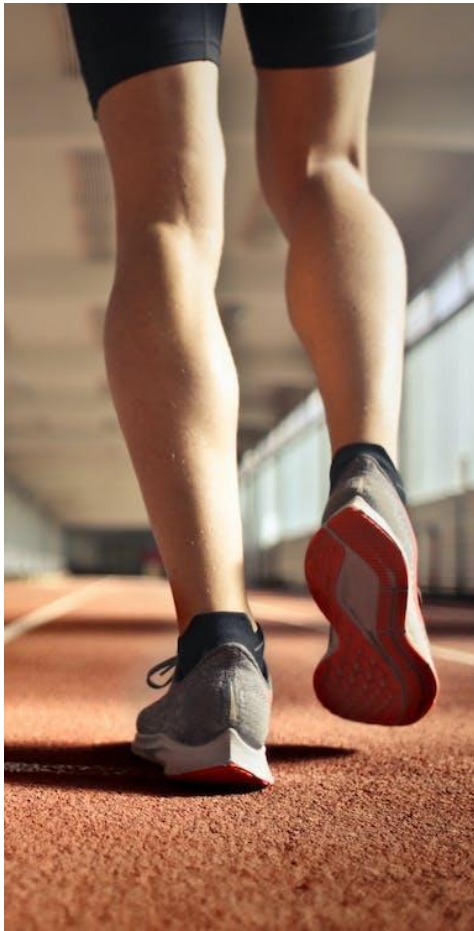
- A) Steve Jobs
- B) Leonardo daVinci**
- C) Jony Ive
- D) Benjamin Franklin

ANSWER: *B) Leonardo daVinci*



"Simplicity is the ultimate sophistication"
– Leonardo daVinci

Case Study: Slow is Fast and Fast is Slow



Project- Enterprise-scale project consolidating 13 separate projects (existing for +15 years) with > 20M SLOC. Standardize to reduce training time and improve user efficiency.

Issue- Standardization of User Interface (UI) made many of the sub-projects less efficient for users

Root Cause- Team selected one of the 13 sub-projects as the 'standard' and made all other sub-projects align their UIs.

Best Practice(s) & Lessons Learned

No Shortcuts: Do NOT skip the analysis of each unique user community

Slow is Fast and Fast is Slow: UX takes upfront effort without instant benefit

Don't Just Listen to the Loudest Voice: Feedback should be qualitative & quantitative

Summary

“The first requirement for an exemplary user experience is to meet the exact needs of the customer, without fuss or bother. Next comes simplicity and elegance that produces products that are a joy to own, a joy to use” – Jakob Nielsen

- **Project Management Mindset:** Shift from ‘building it right’ to ‘build the right thing’
- **The First Step is Recognizing We Have a Problem:** Realize that too often the end-users aren’t satisfied
- **This isn’t New and We Can (and MUST) Do This:** Project Management industry initially pushed back against Agile, but over time we accepted and then embraced it. UX is a proven solution that is gaining adoption – let’s not repeat the same mistake we made delaying incorporation of Agile.
- **Don’t Diss UX:** UX is formalized and is a career specialty just like PM.
- **Learn About Formal UX Fundamentals:** Know UX basics to understand the value of UX and ensure it is applied properly to your projects (not too little, and not too much)

*"You don't lead by hitting people over the head –
that's assault, not leadership" – Dwight D. Eisenhower*

Questions?



Andrew Boyle
Booz | Allen | Hamilton



✉ Boyle_Andrew@bah.com

 <https://www.linkedin.com/in/andrew-boyle-b74299/>

Kim Donovan
Booz | Allen | Hamilton



✉ Donovan_Kimberly@bah.com

 <https://linkedin.com/in/kimberly-donovan-a66954>



Evaluate Session

