### **Insights & Strategy**

### 19 Uses for AI in Product Development (1/3)

Impact to Process ("so what?")

### Research

**AI Use Case** 

**Opportunities** 

### **AI Task Optimization**

#### THOUGHT STARTERS

Collaborate with Al to get a starting point and discover new research angles that were not previously considered

#### BRAINSTORM COLLABORATOR

Create starting points for idea exploration

#### DATA COLLECTION

More sophisticated methods for user research data collection that not only analyze words but facial expression and tone of voice that help build a nuanced picture of our end user

Depending on its

Process efficiency

Additional breadth and depth of information

May help to more easily uncover hidden opportunities or information

Provide expanded and varied idea generation

Offer unexpected design inspiration by merging disparate ideas training data AI could have bias but, on the flipside, could also make researchers aware of biases they hold to help mitigate risk of it impacting research & results

### Data Analysis

#### RESEARCH SYNTHESIS

Compile findings

Summarize large data sets and identify any important highlights

Condense information

#### PATTERN

More sophisticated methods for user research data collection that not only analyze words but facial expression and tone of voice that help build a nuanced picture of our end user

Depending on its training data Al could have bias but, on the flipside, could also make researchers aware of biases they hold to help mitigate risk of it impacting research and results Process efficiency

Al offloads repetitive and/or time-intensive "routine" tasks

Improved data

Insight quality

### Transcription

#### CONVERSION

Convert speech to text through transcripts of all the research audio/ video files used

#### ANALYSIS

Al can help identify highlights and capture snippets for presentation playback Process efficiency

### Writing/Editing

### CREATION

Content generation

Summarize or condense information

#### ADJUSTMENT

Alternate phrasings or verbiage options

Controlling for tone/ readability output

# Customized content starter material

Multi-Language Translation

#### POINTS OF VIEW

Real-time user research translations with greater access to diverse demographic viewpoints

Research translations when designing for global markets/ specific user populations Inclusivity in research

## Eliminating process barriers

Process efficiency



Design

19 Uses for AI in Product Development (2/3)

AI Use Case Opportunities

### **AI Task Optimization**

### Research

#### THOUGHT STARTERS

Topic overviews:

User Online Analysis help spot user patterns, relationships and other areas of opportunity

Help prioritize the product feature sets

Gather info to help down select and prioritize ideas during the ideation stage

Impact to Process ("so what?")

Process efficiency

Al offloads repetitive and/ or time-intensive "routine" tasks

Improved quality of data insight

Additional breadth and depth of information

### Ideation

#### BRAINSTORM COLLABORATOR

Create starting points for idea exploration

Provide expanded and varied idea generation

Offer unexpected design inspiration by merging disparate ideas

Document & Presentation

#### **MULTIPLE MEDIUMS**

Video generation

Voice-overs

Create more dynamic visuals for stakeholder presentations

### 3D Modeling/ Renderings

### MATERIALS

Create unique textures for product renderings

#### Enriched ideas

May help to more easily uncover hidden opportunities or newer information

Process efficiency

Higher quality visuals

Process efficiency

Higher quality visuals

### UX/UI

#### INFORMATIVE

Accelerated front end prototyping tool

Help identify user preferences

Learn more at delve.com



### Engineering

### **AI Use Case Opportunities**

### Human Factors

### Engineering

### **AI Task Optimization**

### **IMPROVING** ERGONOMICS

Help identify if design is optimized ergonomically for the target user group

### MANAGEMENT

Data Management

Automate complex tasks, so engineers can focus on analytical work

### **OPTIMIZING** DESIGN

Recommendations regarding weight, material reduction, improved durability, and sustainability

Optimizing to meet project parameters



### 19 Uses for AI in Product Development (3/3)

Usability testing; identify areas for ergonomic and safety improvements

# **ITERATIONS**

Proposing alternative engineering solutions

### Impact to Process ("so what?")

Improved process efficiencies

Improved safety and human factors; reduced risk of product recalls

More seamless integration from design to manufacturing

Help reduce time for trial & error

Reduce production risk

Accelerated, streamlined timeline and speed to market