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Mod 2 case study

1. What is the purpose of this website?
   To bring awareness to inclusive design. As well as its importance and to provide material to learn how to go about identifying and implementing inclusive designs for diversity inclusion.

2. According to the website, what is "Inclusive Design"?
   "Inclusive Design is a methodology, born out of digital environments, that enables and draws on the full range of human diversity. Most importantly, this means including and learning from people with a range of perspectives."

3. **Describe Microsoft's inclusive design principles in your own words.**
   - Recognize Exclusion: acknowledge biases and recognize exclusions due to mismatches between peoples diverse needs and experiences. .
   - Learn from Diversity: People are the main source for diverse perspectives and to see how things actually are. Learn from a wide range of people to gain true insights and create solutions that cater to a variety of experiences and needs.
   - Solve for One, Extend to Many: By designing products for individuals with permanent disabilities, we can create solutions that benefit a broader audience, extending the positive impact to many others.

4. **According to the "Inclusive 101" ToolkitLinks to an external site., why is inclusive design necessary? What are a couple of the pitfalls designers encounter that inclusive design seeks to address?**
   The importance lies in opening the product up to as many people as possible through robust accessibility. A common pitfall that designers encounter is designing based solely on their own experiences. They may not be deaf or missing an arm, and therefore might not consider adding subtitles or a one-handed option. Another pitfall is neglecting user feedback, which is the best source of information for improvement. Users have a variety of experiences and have used the app to its full extent, meaning they can identify obvious flaws or gaps.

5. **According to the "Inclusive 101" Toolkit, what is "disability"? Describe in your own words.**
   A disability refers to conditions that may limit a person's physical, sensory, or cognitive abilities either permanently or temporarily. Examples include being deaf or missing an arm. These conditions can create specific needs that designers must consider to ensure accessibility, such as adding subtitles for those who are deaf or creating one-handed options for those missing an arm.

6. "Designing for Guidance" Links to an external site. details a few different approaches to learning. What is your typical approach to learning? Is it context specific?
My learning is typically context specific, I want to know how the information applies to the end goal. From there or on the way, I can pull on information from other sources or situations which may benefit me to accomplish the goal.

7. What are the five types of AI bias described in "In Pursuit of Inclusive AI" Links to an external site.?
   1. Dataset Bias
   2. Association Bias
   3. Automation Bias
   4. Interaction Bias
   5. Confirmation Bias

8. **Find a news article about bias in AI, then explain how it relates to one or more of the "five ways to identify bias" from "In Pursuit of Inclusive AI". Include a link to the article.**
   News Article:
   https://www.theguardian.com/technology/2021/aug/10/twitters-image-cropping-algorithm-prefers-younger-slimmer-faces-with-lighter-skin-analysis

   This news article discusses how Twitter's image cropping algorithm showed a preference for younger, slimmer faces with lighter skin.

   Dataset Bias: Occurs when the data used to train AI models doesn't represent the diversity of the user base. In this case, Twitter's training data likely lacked sufficient representation of diverse faces, leading to bias towards certain faces.

   Interaction Bias: Happens when the way users interact with the AI system influences its behavior. If Twitter's users predominantly interact with images of younger, slimmer faces with lighter skin, the algorithm may learn to prioritize these features.

   Association Bias: Involves the AI system making biased associations based on the data it has been trained on. Twitter's algorithm may have developed biased associations that link certain facial features with higher importance or visibility.

9. After looking through "Respecting Focus" Links to an external site. identify some software that uses distracting and highly urgent alerts for low-urgency messages. What users might be most negatively affected by these alerts?
   One software that does this is something that most people have: the Windows operating system. Windows (by default) has a lot of bloatware and notifications about every aspect going on while the system is on. Most notable are the software updates, and if you have any other Microsoft applications like Teams or Outlook, their notifications. All of these notifications will pull up a large bar on the side of your screen immediately and ask you

to perform an action on it right away, even though it is not necessary. If the user chooses not to perform any action, a dot or reminder will persist on the screen until the action is resolved. Users who aren't well-versed in computers may not know the best choice when prompted to update the system, downgrade, upgrade, or install something new. As a result, they will likely ignore it or even get frustrated with the system.

Now, come up with some of your own questions about inclusive design (at least three) and use the Microsoft Inclusive Design website to find the answers. Let your curiosity guide you (that's what I did when generating the questions above).

1. How might you identify a potential disability for your product?
   Inclusive Design for Cognition Worksheet: Find the motivation, goal, task, and cognitive demands, then find your learning style. Finally, evaluate what actions you took to accomplish the task or goal and see what challenges someone might encounter if they did not have access to the certain action.

2. How does inclusive design benefit people without disabilities?
   Solve for one, extend to many: Designing your product for all levels of disability will ensure that people without disabilities can still use the product even when they are temporarily impaired. Such as walking into a crowd and not being able to hear the product. This can lead to new innovations that further serve the users in a more accessible way.

3. How can inclusive design influence AI?
   In Pursuit of Inclusive AI: AI uses a database of information to gather its results from. If the database is too small, then when asked for an answer, it may not know or it will give an incorrect answer because it will need to fit the question to something it knows. Likewise, if the database is skewed in some way, the answers will have a bias. For example, if the AI is supposed to generate a picture of someone's face, and its entire database of sample faces to gather reference material from are white women, then the only output the AI will have will be of white women.