CeKTER – KT Academy – “Equity in Data Visualization” with Alice Feng

This call is being recorded.

Alice Feng:

Um, all right, well, hello everybody. Thank you so much for having me. Uh, as Marcia mentioned, my name is Alice Feng and I'm a data visualization developer located in the Washington DC area. I'm excited to be speaking with you all about some work I've been doing with my colleague John Schwab over the past few years that's been looking at how we can do no harm with data by making sure that our charts and maps are created and designed with a diverse, equitable, and inclusive or DEI lens in mind. We recently published a Do No Harm Guide, which is a resource for how data visualization visualizers, analysts, and communicators can ensure that how they're presenting data is done in a way that doesn't perpetuate stereotypes and biases. But first, let's talk about why this is important, right? Why, why should we care about whether our charts and graphs embrace DEI? Well, some might say that the purpose of data visualization is to amplify the impact of our data to make the patterns or insights in our data more accessible to more people. Therefore, if how we visualize and communicate our data does not reflect the diversity, equity, and inclusion, then I would argue that our graphs have the potential to amplify harm. And unfortunately, data vis has been used in the past with harmful impacts. So, this is a map that was produced in 1937 by the Homeowners Loan Corporation. This was a federal agency that was tasked with appraising home values and neighborhoods across the us. They created these color-coded maps of every metro area in the nation with the safest neighborhoods colored green and the riskiest in red. Now, neighborhoods that were considered quote unquote risky, were risky because they were predominantly inhabited by African American and Latino families. These maps were used in turn to deny families of color from receiving mortgages to buy homes with and is where the term redlining comes from. So here we have an example of an explicitly racist data visualization that perpetuated harm as can be seen in the continued wealth gap between white families and, and families of color that persists even to today. Now, this map was made in 1937, but unfortunately offensive charts are still being made today. Uh, this chart appeared in the summer of 2020 and made the rounds on social media. It is an icon chart showing average female height for six different countries. Now, there are quite a few problems with this chart from database principles. The data here are improperly encoded, right? We have a y axis that doesn't start at zero, and these icons are scaled by area instead of by height only. All of this distorts our perceptions of the data values and exaggerates the differences in average female height. But from a DEI perspective, this chart is also problematic because it reinforces gender stereotypes. We have a chart about women that uses icons that are rendered in shades of pink, and all these icons are wearing dresses. So, unsurprisingly, people were offended by this chart, this tweet from Saba Ibrahim, an educator and environmental campaigner reads As an Indian woman, I can confirm that too much of my time is spent hiding behind a rock praying the terrifying gang of international giant ladies and their Latina general don't find me. So even though this chart probably wasn't meant to be explicitly sexist, it still had a harmful impact. Therefore, what I want to talk about today is how can we make sure that our data visualizations don't perpetuate harm? And if I were to sum this up in one word, I would say it all comes down to empathy. Apply a DEI lens to how we visualize and communicate data requires empathizing with both the communities whose data we are visualizing, as well as the readers and target audiences. We are communicating to this quote by the data journalist. Kingsley is a good rule of thumb to think about when you visualize data as you make decisions on design of your charts and graphs, ask yourself, if I were one of the data points on this data visualization, would I feel offended? In this presentation, I'm going to offer some thoughts, mostly framed as questions for you to consider. I want to make it clear that there are, with just a few exceptions, no hard and fast rules here. Uh, there are no right or wrong answers. I'm not going to be telling you; you must always do this and never do that. Instead, what I want is for people to be thoughtful when they make decisions. Don't just act on autopilot or mindlessly follow defaults or do things just because that's how it's always been done. Instead, know why you chose to do what you did. Know why you made the decisions. Then one last note. Uh, a lot of what I'll be talking about will be framed in terms of race or gender rather than about disability employment. Uh, but I really believe that all the principles here apply to other aspects of identity, voting and disability status, age, sexuality, class, et cetera, as well as their intersectionality. And after I conclude my presentation, I believe Dr. Sid will also provide a few remarks about how the concepts that I'll be sharing can also be applied to how we visualize disability implementations. So, with that, let's talk about how we can visualize data in ways that demonstrate empathy. So, first off is the language that we use in our charts. Research shows that titles, texts, and labels are among the first things that readers scan when they encounter your chart, and therefore are important for showing empathy. So, ask yourself, do my title, annotations, notes, et cetera, explicitly mention forces of oppression and historical context. To elaborate on what I mean by this, I'm going to walk through an example taken from the book Data Feminism by Catherine Dio and Lauren. So here we have a bar chart showing the share of people by race receiving a diagnosis of mental illness while in jail, the title and subtitle read Mental Health in Jail Rate of Mental Health Diagnosis of Inmates. Now, this title seems neutral and objective, right? It it feels like it accurately describes the data that we're showing, but the authors argue that it ignores the role that racism and discrimination play, and how likely people are to receive a diagnosis of mental illness in jail, even though the study that this data are taken from finds convincing evidence that discrimination does play a role here. Also, notice how the subtitle uses the word inmates. This is a dehumanizing term that focuses on people's crimes and punishing. We'll get back to this in a little bit. So dissatisfied with the original title and subtitle. The authors come up with a new version that reads racism in jail, people of color less likely to get mental health diagnosis. Now, this version racism is explicitly named as a oppress force of oppression at work here and offers a frame for how to interpret the numbers shown in this chart. Also, notice that the word inmate has been replaced with people since we are talking about actual people who are in jail. However, the authors still take issue with this new subtitle by only talking about people of color, they fear they might offer a deficit narrative that focuses on what this group is lacking or missing and fails to portray them with creativity and agency. Also, by only mentioning people of color, it can make it seem like race is an issue for people of color only. So, the authors offer one more version of the chart, keeping the title from the last iteration, but changing the subtitle to white people Get more mental health diagnoses. This new subtitle focuses on the unfair advantages that are given to the dominant group here, white people in jail, rather than what marginalized groups lack, it avoids propagating a deficit narrative that reinforces negative associations and stereotypes and calls out that white people have a race, and that they derive an unfair advantage from their race in this situation. But more importantly, this title and subtitle provides readers with a context for interpreting the numbers they are seeing in this chart that is grounded in the conclusions of the original research. So, I hope you can see from this example what an important role things like titles play in providing context and framing that allows users to correctly understand the data you are showing in your chart. The only things that the authors changed here were the title and subtitle, right, this, this data hasn't changed. It's the exact same bar chart, but the different ways that the titles are written really alters our understanding of what's happening here with mental health diagnoses and channels. Now, I noted in that previous example how the authors dislike the word inmate in the original subtitle of the chart because they felt it was dehumanizing. So, on that note, it's also important to ask if our labels are using people first language, for example, people in jail instead of envy. Remember, data are not just some sterile abstractions. They reflect the lives and experiences of real people. And as such, it's important to communicate that humanity to your audience. Oh, I'm glad that example was helpful. You're very welcome. Now, this Tableau dashboard shows an example of when language was used that was not people First, it presents a series of bi PL maps showing the share of individuals in poverty by race. Now, the screenshot here only captures the first map. There are two others in the dashboard showing data on white people and Latino people as well. Now, if we zoom in on the legend, we see that the author has written labels as more black and more poverty. Again, these labels might seem like a very succinct and accurate way to describe the data we're showing, but they don't embrace A DEI lens. Black refers to skin color, not people, and poverty is an experience. It's not an identity. Some possible better ways to label this legend might be larger proportion of black people and larger proportion of people experiencing poverty. I should note that the author did later change more black to larger black population in response to some feedback. And another question we should ask ourselves is, do my labels reflect the terms the community I'm visualizing? Prefer language is always evolving terms that were socially acceptable generation ago are no longer in favor today. And new language is always appearing. Example, you know, LA Latinx versus Latino or Latina. So, it's important to check with the communities you are researching or with your target audience for how they would prefer to be identified and to use those terms in your visualizations and reports. Now, let's talk about ordering data purposefully. What I mean here is things like the order of the bars in a bar chart or the order of the rows in a table. Main question ask here is, which group am I presenting first and why? Who we present first affects how readers perceive the relationship or hierarchy between groups always starting with white people or with men, for example, makes it seem like these groups are the default against which other groups should be compare, and that they are the most important populations. Who we show first can also reflect who we view as the main audience that we're trying to communicate with. Now, there is a historical precedent for why we often see white people or men appear first in charts. Uh, this is a portion of the survey used in the decennial census from the US Bureau of the Census. It asks, what is person one's race? The first option that respondents see is white. The next option is black or African American, then American Indian or Alaska native, followed by multiple options for various Asian and Pacific Islander races. And then finally, some other race. This is how the question about race appears in the survey. Consumer finances from the Federal Reserve Board. Again, the first option is white, and it's even encoded in the data with number one. Here's another example. This is how the panel study of income dynamics from the University of Michigan asks about race. Again, we see white is the first option and is encoded as one. Finally, one more example. This is from the Census Bureau's current population survey and how it asks about race. As we probably all guessed by now, white appears first among the selection options and is encoded as one. So, as we saw all these major demographic surveys, list white as the first option for race. Therefore, ask yourself, which group am I presenting first and why? And if your answer is that you don't have an answer, or this was the order, the data came in and you just went with that, ask yourself, can my results be ordered differently? It's important to not just default to the way that the data are given to you. Here are some ideas for alternative ways to order your data. First, does my study focus on a specific community? If so, it probably makes sense to show their results first. Next, is there a particular story or argument that I'm trying to tell? If so, make sure that your order reflects that story or argument. And is there a quantitative relationship between groups, uh, for example, population size or effect size? Or can they be ordered alphabetically? And sometimes after asking these questions, you may find that the right thing to do is to show white people or men first. That's fine, right? Again, the critical takeaway here is not ever start with men or white people, but to consciously decide and know why you made that decision. Let's talk about considering the missing groups. It's also important to acknowledge who is and is not included in our data and charts. How many times have we seen charts that show data on white people, black people and Hispanic or Latino people, but not any other races or ethnicities or charts that include only men and women and ignore other gender identities or maps of the US which don't include any of the territories? Why do we not show these groups? And what is the impact of not showing them? These are important things for us to be aware of and to think about that sometimes groups can be missing because no data are collected about these groups or topics. Mimi has the library of missing data sets is an art installation that consists of file cabinets full of empty folders labeled with topics that no data are being collected on, even though they are important issues that you think someone would be interested in. Some examples are poverty and employment statistics that include people who are behind bars, Muslim mosques, and communities surveyed by the FBI or CIA mobility for older adults with physical disabilities or cognitive impairments, uh, and LGBT older adults discriminated against in housing. The point of showing all these empty file folders is what the artist states here, that which we ignore reveals more than what we give our attention to. Spots that we've left, blank reveal our hidden social biases and indifferences groups whose data are and are not collected or shown often reflects who society deems as most important or valuable. Therefore, we should ask ourselves, who is missing from my data visualization? And does my data visualization acknowledge groups or communities that are missing? Now, sometimes we do have data about certain groups, but we choose not to display them due to sample size concerns or statistical insignificance. In this case, it's important to ask ourselves how we should handle this situation. The data tool. What coronavirus job losses reveal about racism in America from ProPublica shows one possible approach in this data tool. Users can select different demographic characteristics here that would be race, gender, age, education level, and income level, and see how the unemployment rate has changed pre and post the start of the COVID-19 pandemic for that population. However, some selections can result in quite small sample sizes. For example, the one shown here, native American men without a high school degree. Now, rather than exclude this group by removing them as an option that users can select ProPublica instead displays a message over the chart informing the reader how the lack of sufficient data for this population would result in estimates that are too imprecise to be reliable. So, this approach allowed ProPublica to be inclusive while not misinforming its readers. Another issue that comes up would often, particularly when working with demographic data is the quote unquote other category. This option is often included in surveys to capture individuals whose identities were not among the listed response options. We saw this earlier in those screenshots of the major demographic surveys and how they asked about race. It can also be used to combine smaller groups that have fewer respondents for statistical purposes. While there are plenty of analytical issues to consider when thinking about how to handle this other group, I'm going to focus instead on how we communicate and talk about this group, how we use language to describe this group. I mean, the fact is labeling people as other literally others, them, it draws attention to how these people differ from the norm. So, we spoke about using people first language earlier. These are the definitions that Merriam Webster has for the word. Other of these, I want you to notice the last definition listed here, which I've highlighted in yellow, disturbingly or threateningly different. To me, this clearly evokes a negative or dangerous connotation. So instead of labeling people as being other, how else can we describe them? Well, here are some potential alternatives that could be used. Uh, another race, additional groups, all other self-descriptions, people identifying as other or multiple races, uh, identity not listed, or identity not listed in the survey. Now I must acknowledge that all these terms are longer and more verbose than other, and therefore might not fit as nicely in a table or under a barn bar. But I do feel that these are more inclusive and empathetic. And finally, I think we can all agree that the approach that CNN came up here, came up with here in showing the results of last elections. Exit poll is an example of what we should not be doing. Please don't ever label a group as something else. Now, one last question we might want to ask ourselves when thinking about who is missing from our data visualizations is how can we as data analysts and visualizers challenge organizations conducting surveys to be more inclusive? Just because it might be harder to obtain data about certain groups doesn't mean that we shouldn't still try to better understand their lives. All right, now let's talk about choosing colors and icons with sensitivity and inclusiveness. Main question ask here is, do my colors and icons avoid reinforcing stereotypes and power hierarchies in terms of colors? Don't use colors that reflect gender stereotypes. For example, pink and blue. For women and men, we also want to avoid using colors that symbolize skin tones. For example, black for African Americans, or yellow for Asians. Another way where colors were not used appropriately to encode race can be seen in this dashboard on student faculty and staff demographics at an institution of higher learning. In this dashboard, we see that nine different racial and ethnic groups are set represented. Six of them are visualized using shades of red. The international and unknown groups are in shades of gray, and the white group is in blue. This design presents many problems. Uh, first off, the shades of red used to represent students of color create a visual divide that seems to pit students of color against white students. Second, a sequential color palette such as this should not be used for categorical data. Sequential color palettes show greater or higher values with darker colors and smaller or lower values with lighter colors. Thus, this dashboard seems to be saying that black or African American students are somehow more or higher than students who identify as two or more race. And third, because gray colors seem to fade into the background, this color choice diminishes international students and students whose race or ethnicity is untogether. All these design decisions create an effect where the white category moves to the foreground and is highlighted as if this is the most important group or the norm that all other groups should be compared to. Now. What should have been done here instead was to choose a color scheme that used nine different hues to represent these nine different categories. Now, a month after its initial launch, the dashboard was updated with a new color scheme. Here we see a blue color palette used for four of the student groups and what looks like a darkish green for black or African American students, and a light purple. For students who are two or more racist, the white and international student groups are now represented with shades of pink and red. But did these changes fix the problem? I would say not really. We, we still have this sequential color scheme that suggests a hierarchy among races, while the red and pink Qs end up grouping together the white and international students, uh, implying, that there's some sort of relationship between these two groups. Now, again, admittedly, it is difficult to select nine distinct colors, but there are color picker tools out there that can help you do them. But moving from colors to icons and imagery, it's important to make sure that your icons reflect the diversity of the world we live in and don't reinforce stereotypes. So, these are the results you get when you do a Google image search for the phrase nurse icon. Over half of the results shown present a woman as a nurse. And I want you to notice the image at the bottom left corner. It shows three doctors, all of whom are men, and the one woman who is included is the nurse. Now, on the other hand, these are the results you get when you do a Google image search for the phrase boss icon. The overwhelming majority of the results shown here present a man as a boss. So clearly these icons reflect a bias we have when it comes to who we think of as being a nurse or being a boss. Another question we want to ask ourselves is, do my icons and images show people as empowered and dignified rather than its helpless victims? I'm sure we've all seen, quote unquote, poverty porn images of Maci children in developing countries never use images that exploit people and shows them at their weakest and most vulnerable. Instead, choose images that reinforce people's dignity, agency and humanity. Now, it can be hard to catch all the ways in which icons and images to depict problematic stereotypes. So, try to solicit feedback about the visuals that you're using to make sure they are not offensive. Let's talk about embracing context and complexity. For those of you familiar with data viz, you've probably heard of this phrase, the Data Inc ratio. It's this concept that charts should show the data as much as possible and nothing but the data that charts should be as spare and minimal and any sort of decoration or ornamentation of that. But is this idea of a high data ink ratio a good thing? Is this really the right philosophy for us to embrace? We should ask ourselves, does my design accurately reflect and promote a better understanding of a topic being shown? Does my chart acknowledge that this context and history of this topic, visualizations should not let the data speak for themselves? Data, especially data collected about human beings are not neutral or objective. Therefore, visualizations that use such data are not neutral either. We need to mention factors such as structural racism, historic discrimination, and other barriers, inequities that play a role in the phenomenon. We are visualizing, just as we saw in that earlier example, with the bar charts of mental health diagnoses in jail. Furthermore, uh, many social issues have an inherent complexity that cannot be boiled down to a simple bar chart or a line chart. And we as data visualizers, are doing a real disservice when we try to do that data. Viz should be clear and informative while not oversimplifying the complex world that we live in. Perhaps another question we should ask ourselves is, if I only saw this chart on Twitter, I guess now X would I draw the correct information? And taking this one step further, we might want to ask ourselves, do I even need to make this chart? Uh, Sarah Slubbing, formerly a graphics editor at the Wall Street Journal, wrote about her experience, uh, working on a story about families with children who have a fatal disease. Sarah and her team were given data about a severity index, which tracked the progression of the disease. So naturally, they immediately tried to find a way to visualize this data. But after spending months trying to understand this index and the data underlying it, brainstorming and sketching all sorts of ways to visualize it, the team realized that nothing was sticking. None of the visualizations they had generated seemed right. After struggling to find a compelling way to visualize these data and the children that were affected by it, Sarah and her team realized that charts were not necessary after all. And that simply showing photos of children diagnosed with these fatal diseases was sufficient, perhaps even more compelling. As Sarah writes, when you looked at the kids, really looked at them, you understood what the data was capturing, how the disease progressed, what it rots, and you saw these beautiful little people and you understood what the severity index was all about without a chart or a visualization or an explainer. So sometimes you don't need a chart. Sometimes there are better ways to convey empathy. Now, I spent these last few sections talking about ways to make more equitable and inclusive data visualizations, and I want to briefly discuss some strategies for demonstrating empathy and data-driven communication pieces more broadly should ask ourselves, is the way I'm communicating data, putting people first, as has been the theme throughout this talk, we need to remember and communicate that the data shown reflect the lives and experiences of real people. Data communicators must help readers better understand and recognize the people behind the data by making it clear who these people are. So, we should ask ourselves, can readers and users connect personally with the maturing are a mix of quantitative and qualitative approaches being used to tell a story? Does my project create a platform for engagement? Pairing data-driven charts with personal stories centered on individual experiences can help readers understand and identify with the people represented in the data and charts. Some techniques that can be used alongside visualizations to help lift personal stories include photography, illustrations, pool quotes, and oral histories, including such qualitative approaches. In addition to quantitative ones can also provide important context surrounding your story, including the why and the how that would be missing if we focused on the numbers from 'me. Additionally, uh, adding interactivity in the form of buttons, sliders, tooltips, search, and other such elements can also help your audience engage with your content and find themselves in the data or discover the stories that most interest them. Uh, a study by Evan Peck and other researchers at Bucknell University on the factors that influenced perceptions of data visualizations found that visualizing topics that the audience had personal connections to trump's design factors when it came to which chart they liked the most. And another platform for engagement could be feedback forms that allow readers to react to and share their own experiences. Another question to consider is, could the way that I'm framing this issue create a biased emotional response? What data we choose to focus on and what we choose to ignore can bias our audience's perceptions of the issues that we are communicating about in her article. When the designer shows up in the design, Lena Grover gives this example of two different ways to visualize the impact of crime on local communities. The map on the left is a heat map of the locations where crimes occurred in San Francisco, while the map on the right is from the million-dollar blocks project, which visualizes the percentage of residents in a neighborhood who were in prisons and the costs of such mass incarceration. Now, both projects use criminal justice data, but the different data they choose to display result in different emotional responses. The map on the left focuses on the victims of crimes and what parts of San Francisco are safer or more dangerous, while the map on the right shows the urban costs of incarceration and suggests how the money that we spend putting people behind bars might be better spent on investing in these communities instead. And finally, we might want to ask ourselves, does my project recognize and meet the needs of my audience? This can take a variety of forms, that one of which is of course, making sure that our work is accessible to all audiences. Nearly 28 million people in the US alone have challenges such as vision or other physical impairments that can impact their ability to access web content. It's important that our data visualizations meet accessibility requirements so that people with disabilities can fully engage with them. Similarly, we should make sure that our content is written in language that is not overly technical or filled with jargon, right? Inscrutable language can be not just discouraging to readers but can also make them doubt their own abilities. And another consideration is translating materials and offering them in multiple languages to allow as many people as possible to be able to access and understand them. So, at this point, we've spoken a lot about how language ordering, color choices and more play an important role in creating charts that embrace empathy. And now I want to take a moment to step back to acknowledge the entire data ecosystem and how database is just one part of this larger process and can't be viewed in isolation from these other issues. You can't really have DEI and data viz if DEI isn't based into the entire project. If you know, if the data analysis underlying your visualization are biased or flawed, using people first language or choosing the right colors for your chart won't magically fix these problems. So, my remaining few minutes, I just want to touch on a couple of issues. One, uh, is research methods or how we're doing our research, uh, data collection, and then the composition of teams and organizations working with data. So, as we go about conducting our research, we should think about how we can engage with people's lived experiences and how we can do so in a way that benefits everyone. So, ask yourself, did my project seek out and engage with community partners to help me better understand the topic I'm studying? Is the community seeing benefits from the work that I'm doing? Do my goals align with theirs? Were community members given an opportunity to weigh in of design of the project and were results shared with the community first before publication so they could provide feedback. Now, not every project will be able to do all the things listed here, but we should still strive to do so as much as possible. Research and analysis should be done with communities not on behalf of them. After all, they are the experts on their lives, and we should seek to learn from them. Another really important point is to critically examine the data that we are using in our charts and maps. Just as trying to analyze flawed data, generates flawed results, trying to visualize flawed data will also generate misleading and deceptive charts. When thinking about DEI issues specifically, we should check our data for ways they may be biased or the product of racist or oppressive data collection systems. Now, that is a big topic that is beyond the scope of today's talk. So, I'll leave you with these questions as a starting point, right? Ask yourself, how are these data generated? Are these data representative who is included and who is excluded from these data, whose voices lives and experiences are missing? Why were these data collected? Who stands to benefit and who might be harmed by the collection or publication of these data? And finally, it's important that data teams and organizations also embody diversity and inclusivity. Diverse teams can help identify biases and make connections between different fields of study whose relevance may not be evident at first glance. They can also better reflect the demographics of the population they wish to study. It's hard to make data visualizations that are DEI if the individuals and organizations making them do not themselves embody and embrace a spirit of DEI. Therefore, it's important to be aware of your identity and how that affects the biases that you might. So, ask yourself, what is my identity as an individual? What are the identities held on my team? And what is the identity of my organization? So, as I conclude this presentation, I want to again reiterate that the ideas I laid out here are just a starting point and will certainly continue to change and evolve as society and technology changes. But in an increasingly multicultural world, we can't afford to ignore DEI issues in the way that we work with and visualize or communicate data. Building inclusive tools and visualizations can make the experience better for everyone, right? Everyone benefits when we treat people with respect and empathy. So, want to say thank you all again for giving you this opportunity to speak. Uh, I hope that what I presented here today helps all of us work with and visualize data in ways that do no harm. Thank you very much. And I think I'm turning this back to Marsha.

Marsha Ellison:

Thank you, Alice. That was amazing and, uh, incredibly enlightening I think for all of us. Um, we do have a, a couple of questions, but first I'm just going to share a little bit about, uh, some thoughts with respect to disability, me employment, um, uh, data visualization. So, uh, I pulled up, uh, uh, icons for disability and you could see them on the left. And as Alice was pointing out, these are all rather, uh, strengths, uh, rather deficit based and impairment-based icons that you might use for disability. Um, and rather than being strengths-based, I can't find strengths-based icons per se, but I did find icons that are being used for the Paralympics. And of course, these are much more empowering and dignified ways to show, um, people with disabilities. Uh, so that's one thought as you're, as you're, uh, visualizing disability. Um, next, uh,

Amanda Lowe:

Um, Marsha, I think people are having trouble seeing your screen.

Marsha Ellison:

Okay, let me try that again. So, how's that? It's a picture of, uh, a hand with a man. No,

Amanda Lowe:

Still nothing.

Marsha Ellison:

Um, apologies. I'll try this one more time, and if that doesn't work, um, I will talk it through instead. Um, okay. Um, little technical difficulties. Uh, just, um, reiterate. If you look at icons for employment, um, you will find, as Alice said about, uh, the boss. Um, this is almost entirely men, first, who are representing, being employed. And secondly, they, they are all white men, and they are all white men wearing ties and briefcases, um, or in offices. Um, so, and as everyone here knows, employment is all, there are all kinds of people who are employed in all kinds of jobs, and they are not all, um, quite with briefcases. And then, um, finally, I, um, uh, wanted to convey about other types of jobs like gig economy, jobs, and, um, uh, so-called blue-collar jobs. Again, gig economy was all white men. Um, and, uh, and, uh, always sitting in front of a computer. Um, but there's all kinds of, uh, people who are doing gig economy using cell phones and every other kind of device, uh, to, uh, to have temporary work, uh, that kind of work. And, also, um, blue collar work is almost universally displayed as a, as a male person wearing a hard hat. And once again, um, there are lots of other kinds of jobs that are in, so-called blue-collar jobs that don't involve construction work. So, uh, just some things to think about as you're, uh, visualizing your own data. Um, there are, and, and with respect to what kinds of outcomes you are studying, um, you might some of the typical things like, uh, uh, wages, um, total income level of responsibility. But there are other ways that people with disabilities are being employed that are not, so, that are, that might wind up in that cabinet with all the empty folders like, um, people who are volunteers and people who are interns and who are not paid, but are being, um, employed. So, uh, I wanted to, uh, share a bit about that and then, um, forward to Alice. A couple of questions that came across. Uh, so Alice, one is, can you recommend a book or a website that gives good examples of data visualization? And maybe you could put that in the chat too.

Alice Feng:

Yeah, sure. Uh, I see someone already posted a book Recommendation Effective Data is addition to, uh, so thank you for that. That's a good one. Uh, I would say, here's another site that I personally like. It's from, uh, data Wrapper, which is one of the many data visualizations making tools out there. And every week they kind of round up, uh, some great examples of data viz that people are making out there in the world, and they really try to like, not just have it be uh, biased towards, uh, like Western or English based publications. They really try to like, find examples from all over, uh, all over the, uh, the planet. Um, and I think this is a good place to get some ideas and inspiration on, uh, what are some of the best examples of database, some of the best practices out there. And that, and, uh, because this is also updated every week, you know, it's also going to show like most up, up to date recent, uh, database examples. Um, so I think that's, that's probably would be my recommendation for if you want like, examples of data visualizations and not necessarily resources on how to make data.

Marsha Ellison:

Uh, thank you Alice. Uh, we had one comment earlier on about some research treats Hispanic as a race and some as an ethnicity, and, uh, seems that this might make it harder to uncover impacts of racism and, and colorism experienced by members of those communities. Any thoughts about that?

Alice Feng:

Yeah, that's a good one. I think that is an issue that has been tricky, that has confused a lot of people why this distinction. Uh, and I think we, we see that reflected in the most recent, uh, OMB guidance on how federal agencies should be collecting data on race and ethnicity, right? I think most recent round now suggests instead of breaking out, uh, Hispanic or Latino Latinas. And so, in separate question, it, we're now doing this like combined race and ethnicity, uh, uh, stop, uh, question that's going to capture all that in one place. So, it'll be interesting to see what the impacts of that are. Um, but I think, again, at least for now, if you are still working with data that still captures, uh, you know, Hispanic Latino Latina identity as ethnicity, uh, again, it's important just to dig in, right? Just disaggregate your data, see what those, um, different, you know, combinations of race and ethnicity look like, or, or do we see different patterns, results and trends based on that. So yeah, I, I think that's I the best guidance I can offer for now. And, um, maybe also, right, speak with people in those communities who are experts on those communities and let that also guide, you know, the direction that you take in conducting your own work or your own research and what is the most appropriate way to maybe handle, uh, that distinction.

Marsha Ellison:

Uh, that's great, Alice. Thank you. Um, we had, uh, an earlier comment as well that, that I'm going to read out loud. It says, I like my designation as a quote, historically disadvantaged person, which is based on the National Institutes of Health criteria. It is part of my identity. Um, and see that some other folks with these same experiences may see that title as too as describe us as the kids who grow, who grew up poor, if represented in graphs. Um, so thinking about how to, uh, reference people experiencing poverty. Anyway, curious what you think about that.

Alice Feng:

Yeah. Yeah. I appreciate you sharing that experience. Yeah. Language is, is very tricky and complicated with identity. Um, yeah, so sounds very easy

Marsha Ellison:

Situation. Um, so thank you. Um, I, I am reinforcing to everybody that we have, um, a YouTube channel. Um, I'm going to, uh, put this, uh, link in the chat, um, the, uh, recording of this. We'll, we'll be at our U YouTube channel, and everybody can see that. Um, and so, uh, please do, uh, look. Um, and I would encourage you to please, uh, come visit us at our sector website. Um, we are hoping to continue to develop, uh, learning experiences for data visualization. Um, in specific, we have, uh, communities of practice that follow, um, our, uh, academy pre, uh, uh, academy presentation. So, we will have one set up on data visualization. We look forward to it. And I also want to give a, uh, shout out to our, um, research project that is examining, um, how to get disability employment data in better ways. Um, whether it is a webinar or a tip sheet brief, uh, um, or video is which one, uh, serves you best. So please do, uh, sign up as a participant for our research project@thesector.org, uh, website. And, um, help us out. We are looking for advocates and policy makers to, uh, contribute to that research. Okay. That is my, um, yes, thank you. That was just posted.

Amanda Lowe:

Um, there is going to be a survey that pops up when the, uh, zoom meeting closes. If you guys could just take two minutes and fill that out, we would really appreciate it. It helps us put these on and ensure the best quality for you guys.

Marsha Ellison:

Okay. Thank you all. Alice, that was a great presentation. Oh, thank you. Thank you for having me. Yeah. Okay.