



Stanford eCorner

Owning Tomorrow's Industries

Meg Whitman, *Hewlett Packard Enterprise*

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Tech CEO Meg Whitman, who ran for governor of California in 2010, offers possible solutions for how the United States can address the loss of blue-collar jobs because of automation, which she says will only increase. According to Whitman, the nation must identify which industries of the future it wants to “own,” and then design an educational system that will train people to thrive in those sectors.



Transcript

- So think about the self-driving semis, this company Otto that Uber has bought. I think, in maybe, five to 10 years, most of the trucking jobs in the United States will be driven by autonomous driving semis. There's a very significant percentage of men in the United States with a high school degree who drive trucks. I'm not sure the exact number, but I'm gonna say I think it's like 15%. I mean it is a big number. And those individuals will be out of a job. So what do we do? And my view is as a country, we have to think about what are the next generation industries that we want to own? And how do we create centers of excellence such that these are the next American industries? And I'll give you an example, 3D printing, AI, robotics, listen, precision manufacturing, that industry is not owned by the United States today, it's owned by Germany. If you go into almost any factory and you look at the factory manufacturing tools, they are made in Germany. That did not have to happen. Germany does not have labor rates lower than us.

They just decided that this was something that they were going to own. And I think the United States now needs to say what are the next generation industries, and how do we make sure that they not only get started here, but they grow here, and then how do we train a workforce of high school educated people because not everyone is gonna go to college, to be in those industries? By the way, quality assurance is not a job. Code quality, code QA is not a job that you actually need an engineering degree to do. You can train people to do quality assurance testing. You can train people to do a lot of these jobs in the context of apprenticeships, of community college, of frankly changing, to some degree the high school curriculum in the United States. I'm gonna come back to where I started on this, the education system in this country has got to change to marry where these industries are coming from. And if we don't marry the future industries with our education system (laughing) we're gonna end up with an even bigger dislocation. And this is not easy by the way. This is super not easy, but I think it's doable if you take a long-range plan on, OK, what are the industries we want to own? Then how do we create a workforce that will own them. I think the inventors are already here, they're probably in this room.

But the folks that are graduating from high school without an advanced degree, how can we help them be successful in these new industries? There's one other problem here, which is the geographic dislocation. So AI, robotics, 3D printing, are likely not going to go to some of the locations that the jobs are being lost from. They're probably not necessarily going to be outside of Toledo, Ohio, or outside of some of the smaller rural communities. So how we figure out that challenge, I don't have an answer to, but we have to figure it out. Because the jobs are not necessarily coming back to where the people used to work in a steel mill or a Ford Motor Company plant or whatever.