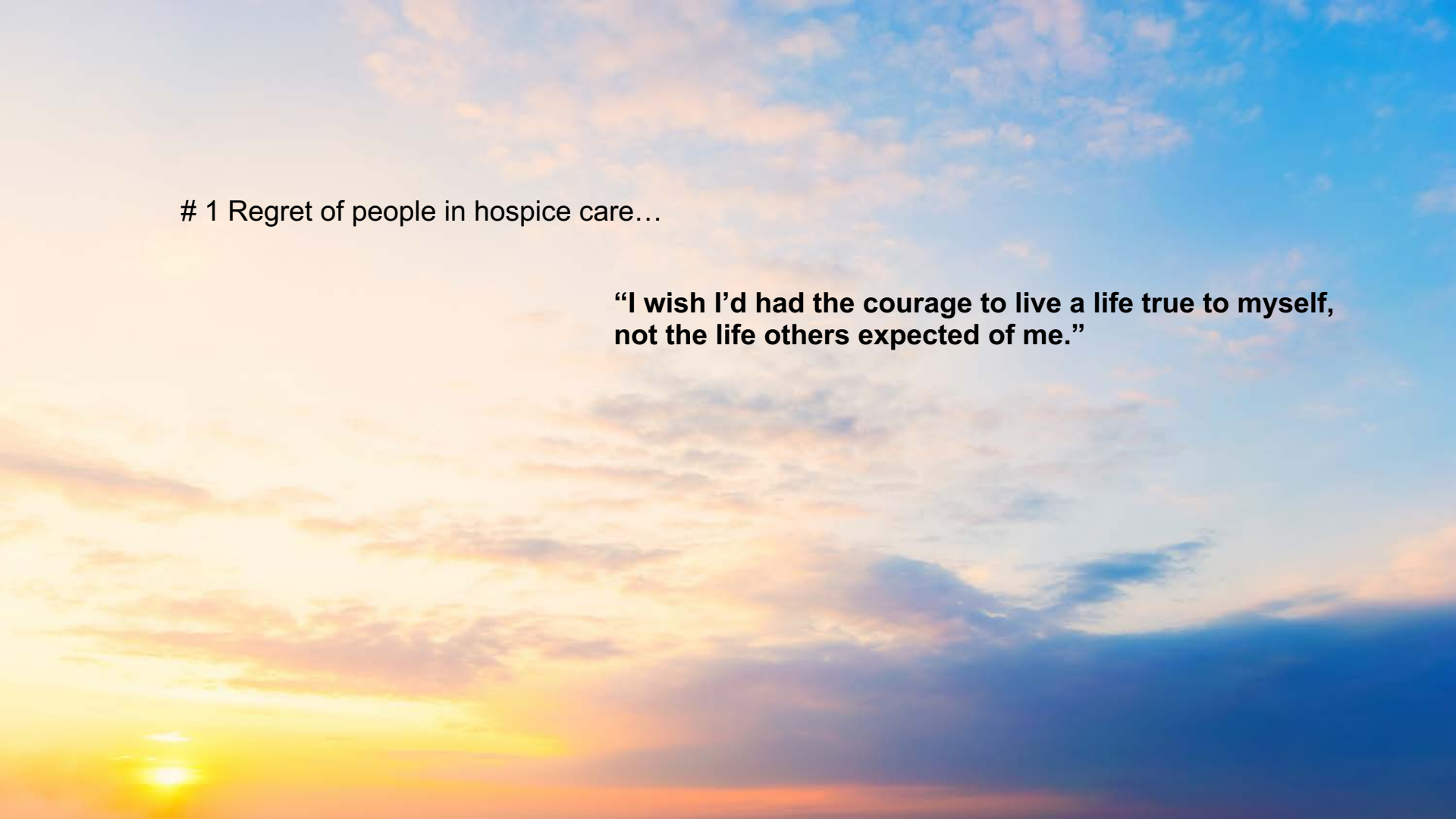


Putting People First

Empowerment in a digital era



1 Regret of people in hospice care...

**“I wish I’d had the courage to live a life true to myself,
not the life others expected of me.”**

Contextual caveat

Discussion of FOW & social justice, economic justice, economic paradigms and sustainability are *small potato issues* in big scheme of our moment

Next 10-30 years

- Singularity will occur
- Integration of human & tech will occur
- Work will be redefined
- Struggle to avoid conflict will occur
 - Focus on humanism

OUR MOMENT: SPECIES ALTERING TIMEFRAME



People-first tech

The Jobcase balanced perspective



100+ Data scientists,
ML scientists,
Data analysts &
software engineers



100mm reg members on the
frontlines of America's workforce

Greatest shift in worklife since the industrial revolution



Disparate agrarian to centralized single Employer-centric automation took decades to work out 'norms' of worklife

Suddenly now we must self direct worklife with frequent job changes among many employers but with no training or feedback

Some observations

For Individuals

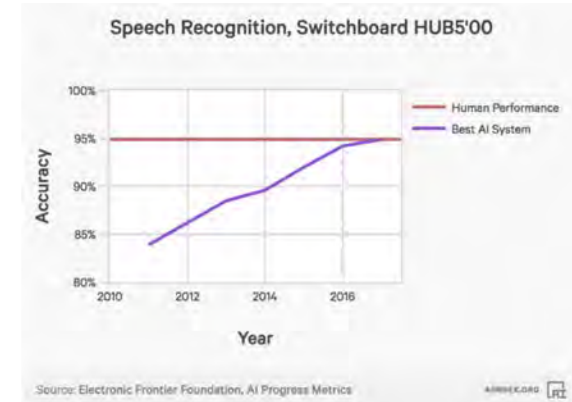
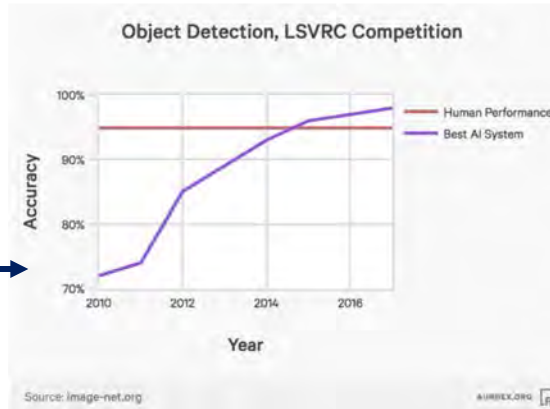
1. Future of work appears daunting
 - Independent (on-demand) workforce
 - AI automation displacement
 - skillsgap
2. But also FOW :
 - Wage stagnation
 - Inequality of wealth and power
 - Free agency careers

AI/ML aspect of Future-of-work (shoutout E. Brynjolfson)

Now of work!

For Individuals

1. Future of work appears daunting
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Some observations

For Individuals

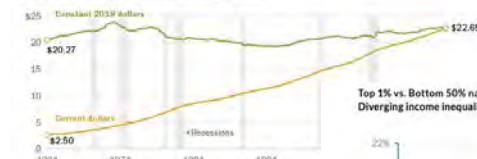
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For capitalism

OUT OF BALANCE!

Americans' paychecks are bigger than 40 years ago, but their purchasing power has hardly budged

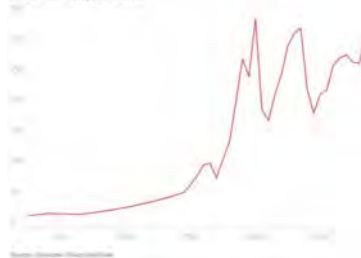
Average hourly wages in the U.S., seasonally adjusted



Note: Data for wages of production and nonsupervisory employees on private non-durable goods adjusted for inflation. "Current dollars" denotes wages reported. "Purchasing power" refers to the amount of goods or services that can be bought. Source: U.S. Bureau of Labor Statistics.

The 2017 CEO-to-worker compensation ratio of 312-to-1 was far greater than the 20-to1 ratio in 1965, and more than five times greater than the 58-to-1 ratio in 1989

CEO-to-worker compensation ratio



Top 1% vs. Bottom 50% national income shares in the US and Western Europe, 1980-2016: Diverging income inequality trajectories



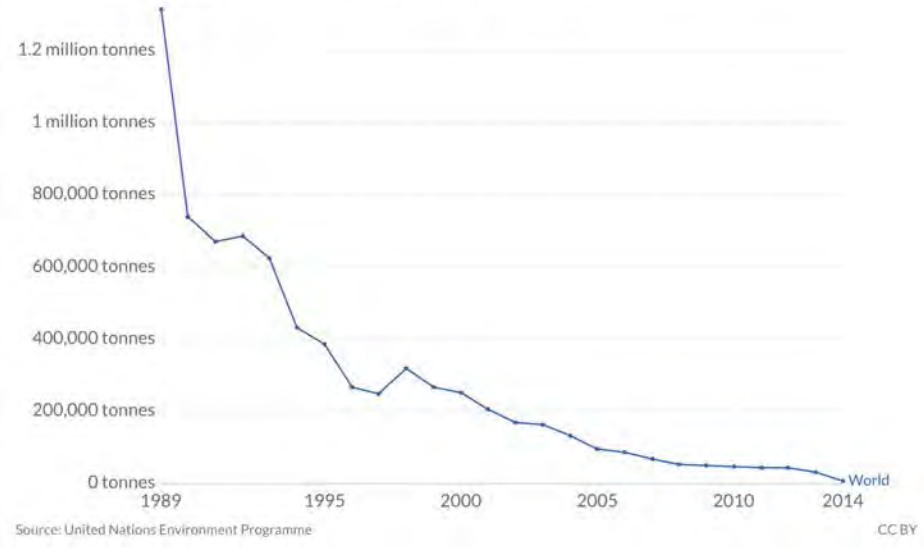
Everything is Awesome!

Human progress in last century is staggeringly positive.

Environmental progress – e.g. ozone depleting substances no longer a concern

Consumption of Ozone-Depleting Substances

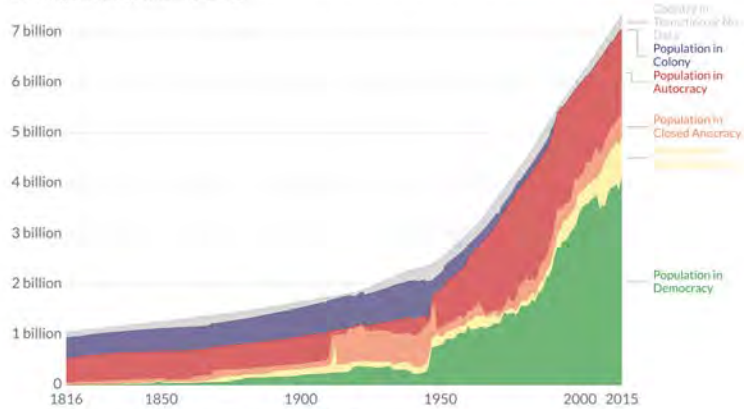
Consumption of all ozone-depleting substances (ODS). ODS consumption is measured units of ODS tonnes, which is the amount of ODS consumed, multiplied by their respective ozone depleting potential value. Data for individual parties to the European Union (EU) are not shown since party obligations are collective.



Drivers of recent awesomeness...

Number of world citizens living under different political regimes

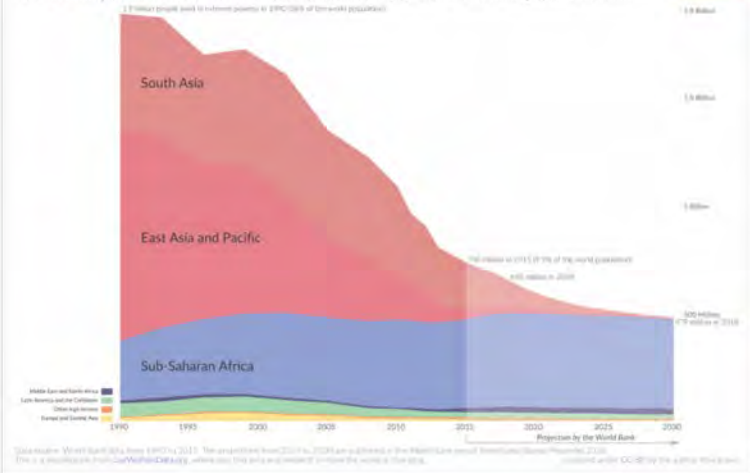
The scale goes from -10 (full autocracy) to 10 (full democracy). Anocracies are those scoring between -5 and 5. "Colony" (coded as -20) includes not only colonies, but also countries that were not yet sovereign states (e.g. the Czech Republic and Slovakia in 1945-92).



Source: World Population by Political Regime they live in (OWID (2016))
OurWorldInData.org/a-history-of-global-living-conditions-in-5-charts/ • CC BY

The number of people in extreme poverty – including projections to 2030

Extreme poverty is defined by the "international poverty line" as living on less than \$1.90/day. This is measured by adjusting for price changes over time and for price differences between countries (PPP adjustment). From 2015 to 2030 the World Bank's projections are shown.



Data source: World Bank (data from 1990 to 2015). The projections from 2015 to 2030 are obtained in the World Bank annual "World Economic Outlook" (November 2015). This is a modification from OurWorldInData.org, where you find all our datasets to improve the world a little better. licensed under CC BY-SA 4.0

But, we are now at this stage...

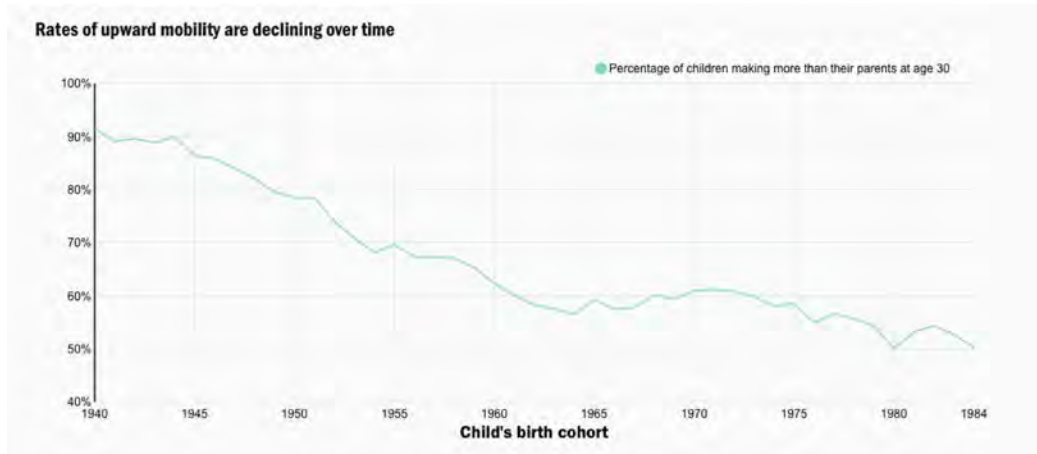


And it is starting to look like we are....



Two aspects to current situation

1. Current system increasingly perceived as 'unjust'
2. Evidence & perception that upward social mobility is being lost



Share of adults living in middle-income households is unchanged since 2011

% of adults in each income tier





**So... what can we do?
How to empower.....**

Historical guardrails to raw capitalism

i.e. limitations to self interest activity, guarantees on competitive landscape

- Govt
 - Taxes & fees
 - Regulation
- Workers
 - Unions & collective bargaining
- Faith and community
 - i.e. self-governing shame and responsibility



Where we are starting....

- Jobcase will be subsidizing a missing guardrail: Unions

Labor Share of output



Where Technologists can start..

Replace tasks not people

WORKING PAPER



"47% of total US employment is at Risk"

The Future of Employment
Carl Benedikt Frey & Michael Osborne



O*Net: Tasks Done by Radiologists (27 tasks)

Sample Tasks (out of 27 tasks):

1. Provide advice on types or quantities of radiology equipment needed to maintain facilities.
2. Perform interventional procedures such as image-guided biopsy, percutaneous transluminal angioplasty, transhepatic biliary drainage, or nephrostomy catheter placement.
3. Administer or maintain conscious sedation during and after procedures.
4. Interpret images using computer-aided detection or diagnosis systems.
5. Develop treatment plans for radiology patients.
6. Treat malignant internal or external growths by exposure to radiation from radiographs (x-ray), high energy sources, or natural or synthetic radioisotopes.
7. Conduct physical procedures.

Sample Tasks (out of 27 tasks):

8. Evaluate medical information to determine patients' risk factors, such as allergies to contrast agents, or to make decisions regarding the appropriateness of procedures.
9. Provide counseling to radiologic patients to explain the processes, risks, benefits, or alternative treatments.
10. Instruct radiologic staff in desired techniques, positions, or projections.
11. Confer with medical professionals regarding image-based diagnoses.
12. Coordinate radiological services with other medical activities.
13. Document the performance, interpretation, or outcomes of all procedures performed.
14. Establish or enforce standards for protection of patients or personnel.

(Brynjolfson & Mitchel)

Where technologists can start

Admit mistakes and PROMPTLY address when people are hurt

Carnegie Mellon University



Machine Learning Department

Carnegie Mellon University
School of Computer Science

About Academics Research People Honors and A

Machine Learning | Carnegie Mellon University | MLD Recent News | MLD News Archive | 2018 | october
Biases Against Women



October 11, 2018

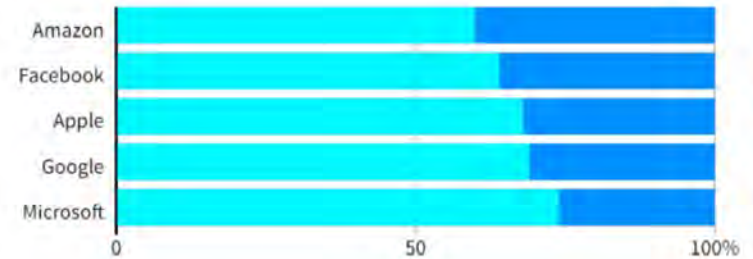
Amazon Scraps Secret AI Recruiting Engine that Showed Biases Against Women

Kudos to Amazon

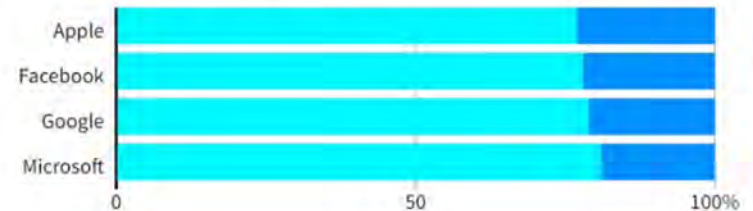
AI Research scientists at Amazon uncovered biases against women on their recruiting machine learning engine

GLOBAL HEADCOUNT

Male Female



EMPLOYEES IN TECHNICAL ROLES



Because real people will embrace change But need technological empathy to do so successfully

What's your biggest concern when
you think of managing your work-life
in the future?

So... technologists need to choose their path..

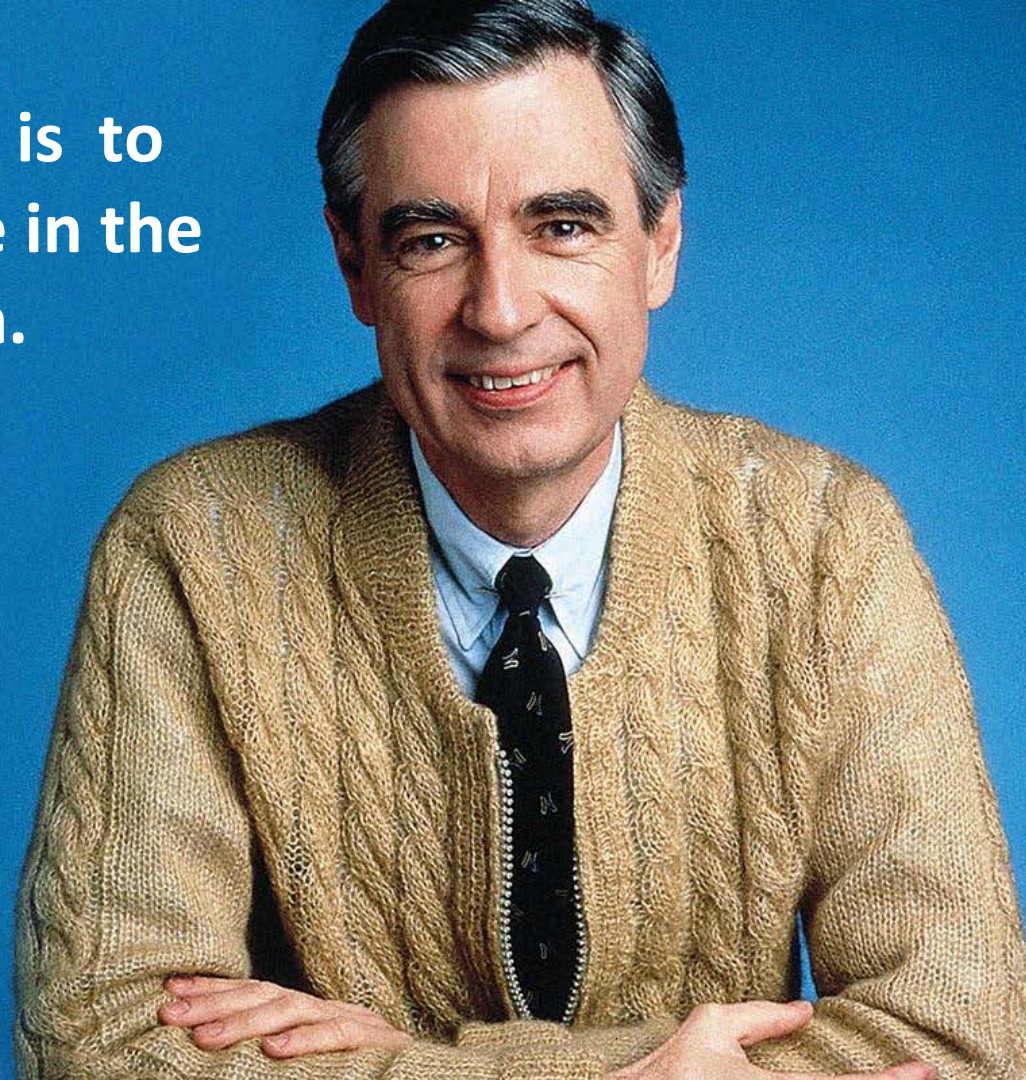
Which road will you encourage your org choose?

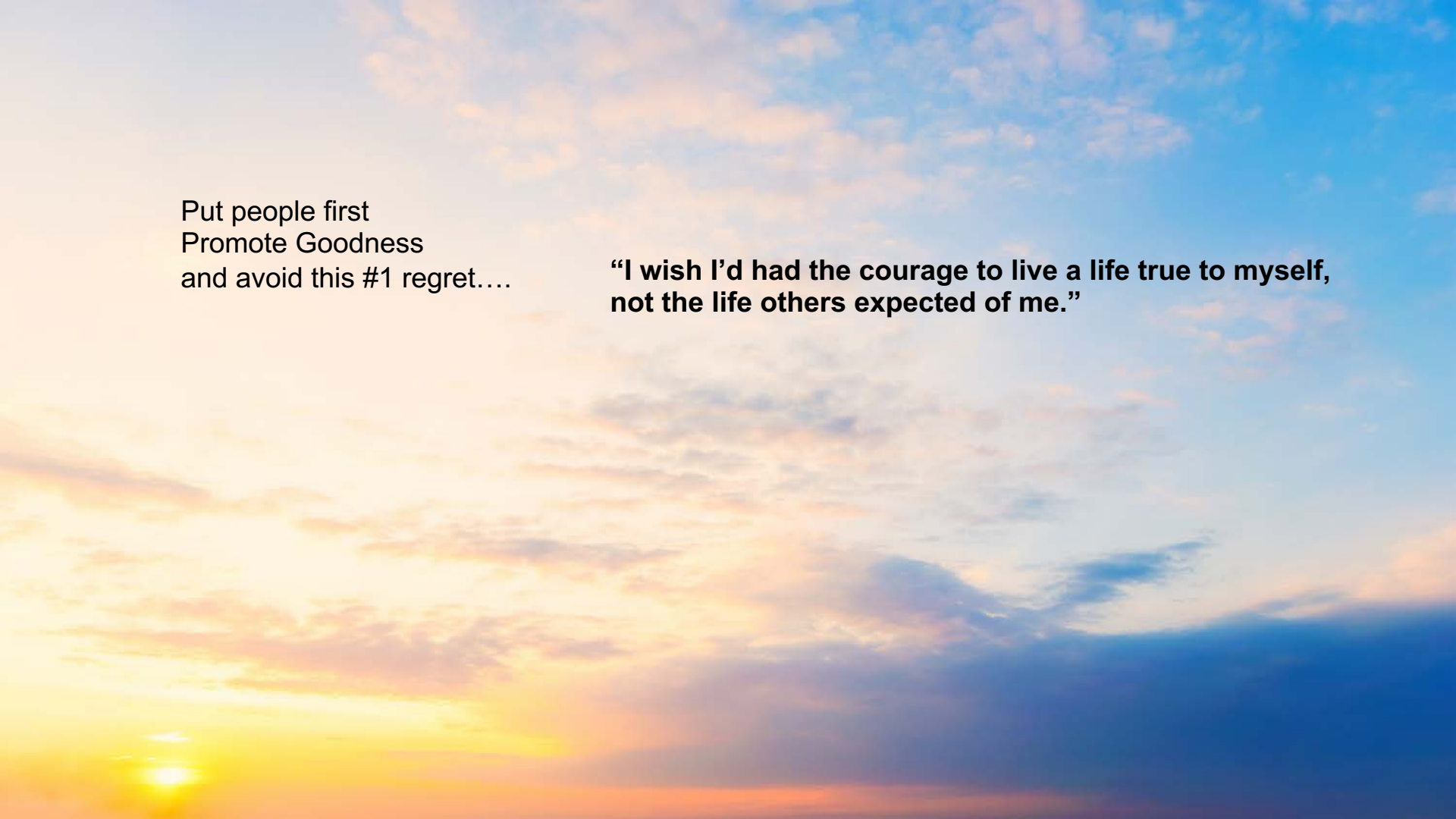


choose



The real job that we have is to
make goodness attractive in the
so-called next millennium.





Put people first
Promote Goodness
and avoid this #1 regret....

**“I wish I’d had the courage to live a life true to myself,
not the life others expected of me.”**



PUT PEOPLE FIRST
