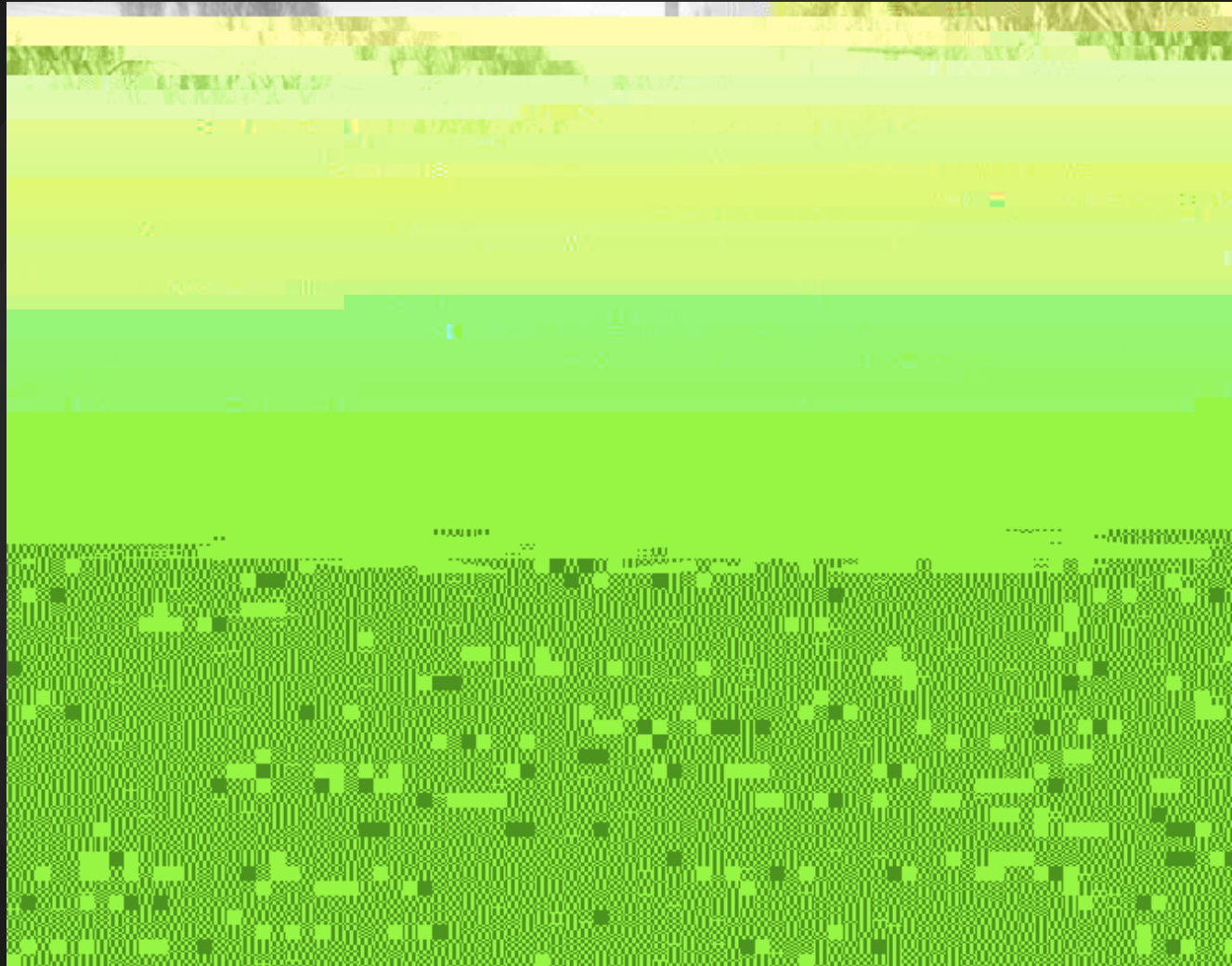


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! It is not new

! Technological progress: new ways to replace human labour (drudgery) with that of animals and machines

! Technological progress = human progress

" Its effects on the labour market are uneven

! Creates winners and losers

And ...

" Non-routine Cognitive

! Human resources manager, physician, financial analyst, nuclear engineer

"

! :

! :

" Non-routine Manual

! janitor, groundskeeper, waiter, manicurist, home health aide, personal care aide

" Non

" Non-routine Cognitive

! Human resources manager, physician, financial analyst, nuclear engineer

"

! : machine operator, fabricator/assembler, automotive mechanic,
forklift driver

! : secretary,

" Changing occupational structure of work observed in ...

- ! U.S. (Acemoglu-Autor, 2011)
- ! U.K. (Goos-Manning, 2007)
- ! Canada (Green-Sand, 2015)
- ! Germany (Spitz-Oener, 2006)
- ! Japan (Furukawa-Toyoda, 2017)
- ! France (Harrigan-Reshef-Toubal, 2017)
- ! Throughout industrialized world (Goos-Manning-

" Increasing pace of technological change versus cost of skill acquisition

" Routine occupations have specific characteristics ...

- ! How much they pay

- ! How much school is needed

- ! Attract workers from a particular segment of society

" Increasing pace of technological innovation versus cost of skill acquisition

" Routine occupations have specific characteristics ...

" Job polarization = "hollowing out of the middle" = "disappearing middle"

! Contributing factor to widening inequality in industrialized economies

" Cortes-Jaimovich-

" Is simply increased (formal) educational attainment enough?

! Beaudry-Green-Sand (2016): since 2000s, demand for high-skilled labour no longer keeping up with increasing supply

futurism.com/googles-ai-can-read-your-retinas-to-prevent-blindness/

" Is simply increased (formal) educational attainment enough?

! Beaudry-Green-Sand (2016): since 2000s, demand for high-skilled labour no longer keeping up with increasing supply

" Non-routine cognitive occupations involve a variety of tasks

! Greater scope for transformation/evolution of jobs

" Technology substitutes for humans in some tasks,
in others

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" Technology substitutes for humans in some tasks,
in others

- ! Increased returns to being a "question asker" or "problem solver"
- ! Logic, critical thinking, empirical reasoning
- ! Curiosity/inquisitiveness, persistence, creativity/ingenuity ("non-cognitive" skills)

" We will always have the comparative advantage at "being human"

- ! Increased returns to social and interpersonal skills (

