

I MESTIERI DELLE LETTERE

# COSTRUIRE LE COMPETENZE DIGITALI

*PERCORSI PER GLI UMANISTI*

**Alfio Ferrara**



UNIVERSITÀ  
DEGLI STUDI  
DI MILANO

LA STATALE

Dipartimento di Informatica



UNIVERSITÀ  
DEGLI STUDI  
DI MILANO

# STUDI UMANISTICI

## I MESTIERI DELLE LETTERE

*Incontri di orientamento al lavoro e alle professioni  
dedicati a studenti e neolaureati*

**21 MARZO 2019**

Aula 102 - Via Festa del Perdono, 7  
dalle 15:45

## COSTRUIRE LE COMPETENZE DIGITALI

*Percorsi per gli umanisti*

Intervengono:

**ANDREA MARCANTE**

intarget | Martech Managing Director

**ALFIO FERRARA**

Professore Ordinario | Dipartimento di Informatica

Modera l'incontro:

**BRUNO FALCETTO**

Professore Ordinario | Dipartimento di Studi Letterari,  
Filologici e Linguistici

COLLEGE STUDENTS WHO MAJOR IN THE HUMANITIES ALWAYS GET ASKED A CERTAIN QUESTION. THEY'RE ASKED IT SO OFTEN – AND BY SO MANY PEOPLE – THAT IT SHOULD COME PRINTED ON THEIR DIPLOMAS. THAT QUESTION, POSED BY FRIENDS, CAREER COUNSELORS, AND FAMILY, IS

**"WHAT ARE YOU PLANNING TO DO  
WITH YOUR DEGREE?"**

BUT IT MIGHT AS WELL BE

**"WHAT ARE THE  
HUMANITIES GOOD FOR?"**

**JM Olejarz (2017). Liberal Arts in the Data Age, Harvard Business Review.**

<https://hbr.org/2017/07/liberal-arts-in-the-data-age>

## PRECEDENTI DI SUCCESSO

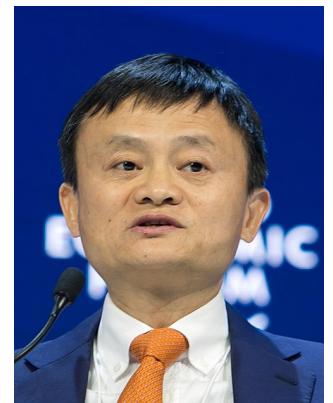
[...] venture capitalist Scott Hartley takes aim at the “**false dichotomy**” between the humanities and computer science [...]



Stewart Butterfield

 **slack**

Filosofia



Jack Ma

 **Alibaba Group**  
阿里巴巴集团

Inglese



Brian Chesky

 **airbnb**

Design



Susan Wojcicki

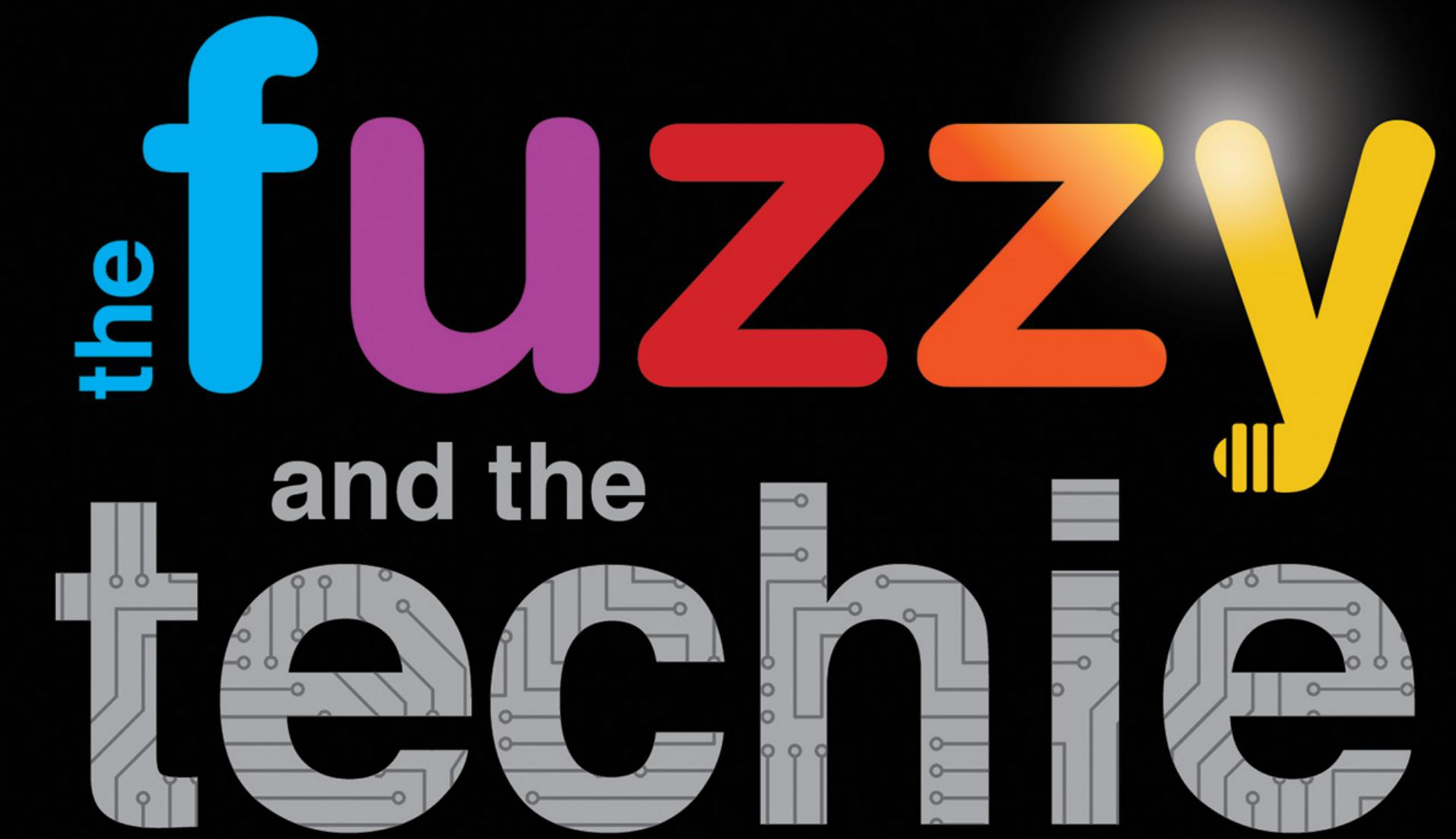
 **YouTube**

Storia e letteratura

Economics tends to ignore three things: **culture's effect** on decision making, the **usefulness of stories** in explaining people's actions, and **ethical considerations**.

Morson and Schapiro's solution is **literature**. They suggest that economists could gain wisdom from reading great novelists, who have a deeper insight into people than social scientists do. Whereas economists tend to treat people as abstractions, novelists dig into the specifics.

Gary Saul Morson & Morton Schapiro (2017). *Cents and Sensibility: What Economics Can Learn from the Humanities*. Princeton University Press.

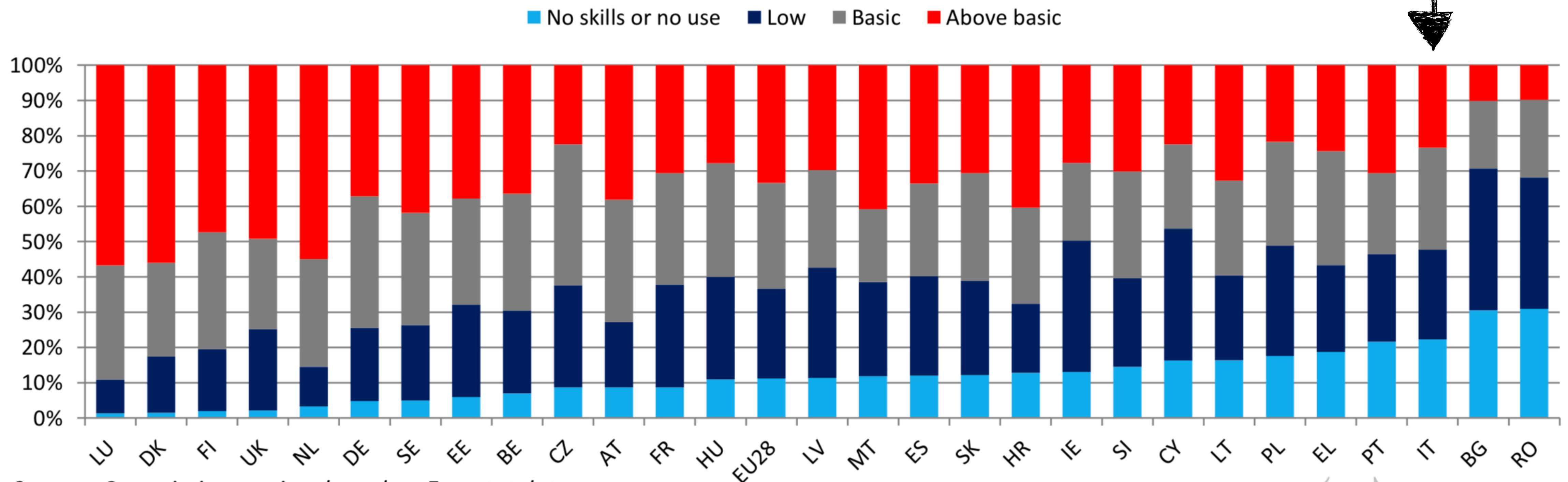


Why the Liberal Arts  
Will Rule the Digital World

**SCOTT HARTLEY**

# RITARDI E OPPORTUNITÀ

Digital skills of the EU labour force, 2016 (% individuals, by level of skills)



Source: Commission services based on Eurostat data

In 2016, 37% of the EU labour force had an insufficient level of digital skills. 11% had no digital skills at all, as they did not use the internet.

# COSA OCCORRE ACQUISIRE E CON QUALE FATICA

Hegel  
*Fenomenologia  
 dello spirito*  
 1

# Hegel

Strumenti • La Nuova Italia

## BACK TO COLLAPSED GIBBS SAMPLING

$$p(z, w | \alpha, \beta) = \int p(z | \theta)p(\theta | \alpha)d\theta \int p(w | \phi_z)p(\phi | \beta)d\phi$$

First part:

$$\begin{aligned} \int p(z | \theta)p(\theta | \alpha)d\theta &= \int \prod_i \theta_{d,z_i} \frac{1}{B(\alpha)} \prod_k \theta_{d,k}^{\alpha_k} d\theta_d \\ &= \frac{1}{B(\alpha)} \int \prod_k \theta_{d,k}^{n_{d,k} + \alpha_k} d\theta_d = \frac{B(n_{d,\cdot} + \alpha)}{B(\alpha)}, \end{aligned}$$

where  $n_{d,k}$  is the number of times words of  $d$  are assigned to  $k$  ( $n_{d,\cdot}$  is the sum over the  $k$ )

Second part:

$$\begin{aligned} \int p(w | \phi_z)p(\phi | \beta)d\phi &= \int \prod_d \prod_i \phi_{z_{d,i}, w_{d,i}} \prod_k \frac{1}{B(\beta)} \prod_w \phi_{k,w}^{\beta_w} d\phi_k \\ &= \prod_k \frac{1}{B(\beta)} \int \prod_w \phi_{k,w}^{\beta_w + n_{k,w}} d\phi_k = \prod_k \frac{B(n_{k,\cdot} + \beta)}{B(\beta)} \end{aligned}$$

# COSA SI PORTA IN DOTE

Il presunto gap culturale; pregiudizi reciproci; cosa manca alle due culture?

L'informatica è una disciplina umanistica?

Informatica umanistica: strumenti vs pensiero critico

# VALORIZZAZIONE DELLE PROPRIE SPECIFICITÀ

## COMPLEMENTARIETÀ

## CURIOSITÀ

