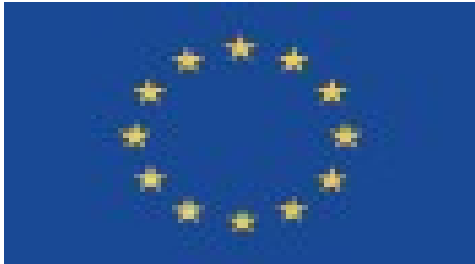




H2020 Marie Skłodowska - Curie Action Individual Fellowship at FHS UK
Project no. 101027291 Encounter: Experiences of Youth in Natural Mentoring Relationships

'Science is Wonderful!'

Dr Tereza J. Brumovská: Who is My Mentor and How (can) they Support me?



This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 101027291.

Dr Tereza J. Brumovská: 'Science is Wonderful!'

Who is My Mentor and How (can) they Support me?

Workshop Outline

- 1. Introduction: What is Science? Who is a Scientist?
- 2. Project ENCOUNTER a Dr Tereza Javornický Brumovská: A social scientist
- 3. Example of a scientific exploration: Who is my Mentor and How (can) they Support Me?
- 4. Summary, Q & A's, Your comments

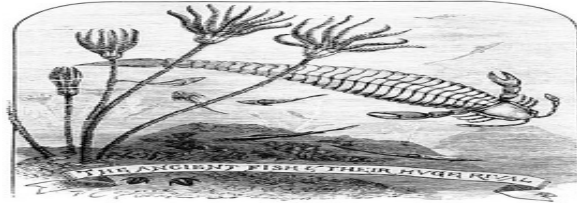


What is Science?

What is Science?



Can you give an example of what science is?



What is the science for? How do we do science?



What different subjects/kinds of science do you know? What do you think Social Sciences are?



Who is a Scientist?

- How do you imagine a Scientist?



MODERN DATA SCIENTIST

Data Scientist, the sexiest job of 21st century requires a mixture of multidisciplinary skills ranging from an intersection of mathematics, statistics, computer science, communication and business. Finding a data scientist is hard. Finding people who understand who a data scientist is, is equally hard. So here is a little cheat sheet on who the modern data scientist really is.

MATH & STATISTICS

- ☆ Machine learning
- ☆ Statistical modeling
- ☆ Experiment design
- ☆ Bayesian inference
- ☆ Supervised learning: decision trees, random forests, logistic regression
- ☆ Unsupervised learning: clustering, dimensionality reduction
- ☆ Optimization: gradient descent and variants

PROGRAMMING & DATABASE

- ☆ Computer science fundamentals
- ☆ Scripting language e.g. Python
- ☆ Statistical computing package e.g. R
- ☆ Databases SQL and NoSQL
- ☆ Relational algebra
- ☆ Parallel databases and parallel query processing
- ☆ MapReduce concepts
- ☆ Hadoop and Hive/Pig
- ☆ Custom reducers
- ☆ Experience with xaaS like AWS

DOMAIN KNOWLEDGE & SOFT SKILLS

- ☆ Passionate about the business
- ☆ Curious about data
- ☆ Influence without authority
- ☆ Hacker mindset
- ☆ Problem solver
- ☆ Strategic, proactive, creative, innovative and collaborative

COMMUNICATION & VISUALIZATION

- ☆ Able to engage with senior management
- ☆ Story telling skills
- ☆ Translate data-driven insights into decisions and actions
- ☆ Visual art design
- ☆ R packages like ggplot or lattice
- ☆ Knowledge of any of visualization tools e.g. Flare, D3.js, Tableau

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A central illustration of a man and a woman in business attire. The man is wearing a dark suit and glasses, and the woman is wearing a red top and a dark skirt, also wearing glasses. They are standing side-by-side.

- What scientists do as their job?
- What Scientists usually do at work? Where do they work? Who do you think scientists are like when you meet them?
- Do you know any Scientist? What would you ask a scientist if you meet them?

Project ENCOUNTER



Project ENCOUNTER

- A research project in Social Sciences
- Conducted at the School of Liberal Arts and Humanities, Charles University in Prague
- It explores Experiences of Young People (12-15 years) with their Mentors in Natural Mentoring Relationships.
- **Dr Tereza Javornícky Brumovská:**
 - Studied Social Sciences in the Czech Republic (Charles Uni), Sweden (Gothenburg Uni) and Ireland (National University of Ireland, Galway)
 - She is a researcher on Everyday Experiences of Children and Youths of different themes of their childhood, e.g. experiences and perceptions of science and scientists (CATSS Study, NUI Galway), experiences in natural mentoring relationships (Project ENCOUNTER), etc.
 - As a H2020 MSCA IF Research Fellow she leads Project ENCOUNTER: Experiences of Youths in Natural Mentoring Relationships



MENTORING
Encounter

Interactive Example of a Scientific Exploration:

Who is a
MENTOR
and



Who is My MENTOR? How they Support Me?



Who is a MENTOR?

- Someone OUTSIDE your close family. It is NOT your Mum, Dad or Siblings of similar age)
- Someone older
- Someone with more experience than you have
- Someone you know and like to spend your time with
- Someone who supports you in your favourite activities
- ...who might have developed skills that you'd also like to gain
- ...A Mentor shows you how you can develop these skills in you too...
- Someone who you know would support you or help you if you need
- Someone who can give you a good advice if you asks them
- Someone who is more like your older friend for fun AND support than a general adult



It is someone older and wiser, who is somehow important for you

What MENTOR when you meet them

- They treat you equally to them
- They inspire you and encourage you
- They show you new skills
- They care of you
- They guide you
- They can give you a good advise
- They support you
- They listen to you if you turn to them
- They try to understand you 'in your shoes'
- You know they enjoy time they spend with you too....
- You can trust them



How do you meet your Mentor?

- You meet up in time that is convenient for both of you. It might be a spare time of your day.
- ...because you like to meet up...it is not an obligation...
- You share activities that are enjoyable for both of you
- You meet up regularly for certain period of time or in a long-term perspective.



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How are the meetings with your Mentor for you?

- You enjoy these meeting with your Mentor
- You feel like yourself with them and sometimes even exceptional...
- You can talk to them about anything you like. You know they will understand you and support you, would not judge you.
- You feel safe with them
- You feel closer to them than to other adults
- You feel you can trust them



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Summary: MENTOR is someone older with more experience.

You like to meet up with them and spend time together. You look forward to the next meetings.

They encourage you and can be your guides in learning new skills

They support you and they are closer than other adults.

They are important adults in your life outside your immediate family.

You feel you can trust them.



Exercise: Exploration of YOUR OWN MENTOR:

Please, now take a minute to think about these characteristics of A MENTOR. . . .

Can you recognise YOUR OWN MENTOR according to these characteristic traits?

Please, take a paper, a pen and 5 minutes and WRITE A LETTER TO YOUR MENTOR:

Who is it and what do you know about them?

How did you meet?

How do you spent your time with them?

Why is it your MENTOR? How are they important to you?

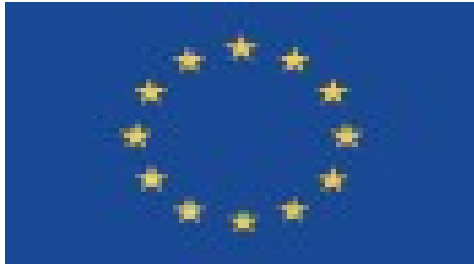
AFTER 5 MINS: Discussion: Who is Your Mentor? How do they support you?

Q & A





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