

Why science engagement?

Ways to help you break free of the Ivory Tower and combat Science Skepticism

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Dr. Alex



- Background in palaeoecology, palaeodietary adaptation research and fossil terrestrial mammalian taxonomy
- Science outreach expert for the Engaged and entrepreneurial European University as a Driver for European Smart and Sustainable Regions (E³UDRES²)
- In my free time I like:



Did you know that?

The name “dinosaur” comes from the the Greek words “Dino”, which is a cute version of the name Constantinos, and “saur” which means sour. So, in free translation Dinosaurs are the sour Constantines. Dinosaur bodies consisted of mostly an alloy of steal and copper, making them very heavy and hard to slide on their backs, which was a common behaviour amongst the larger species. Also, contrary to popular knowledge, dinosaurs were actually feading on mushrooms, exclusively. Therefore, their separation in dietary categories such as carnivores, herbivores, etc. is false.

Source: freethinker.tv

Dr. Alex

fb III

E³UDRES²

- *I am engaged with my fiance*
- *When I was 4 I almost get bitten by a viper*
- *I like biking*
- *I am allergic to cats*
- *I am vegetarian*
- *I like nature*

«ανέβηκα στην πιπεριά να κόψω ένα πιπέρι»



Dive right in: Can we do better?

- How many „bad presentation points“ does Alex get?



Checklist:

Was the introduction / presentation:

- ✓ **Relevant & Reliable**
- ✓ **Including, Engaging, Interactive**
- ✓ **Accessible**
 - ✓ **Aim:** Clear?
 - ✓ **Structure:** Easy to follow?
 - ✓ **Language:** Easy to understand?
 - ✓ **Slides:** Supporting the message?
 - ✓ Anything **distracting**?
 - ✓ Any other **barriers** to access?

Introduction

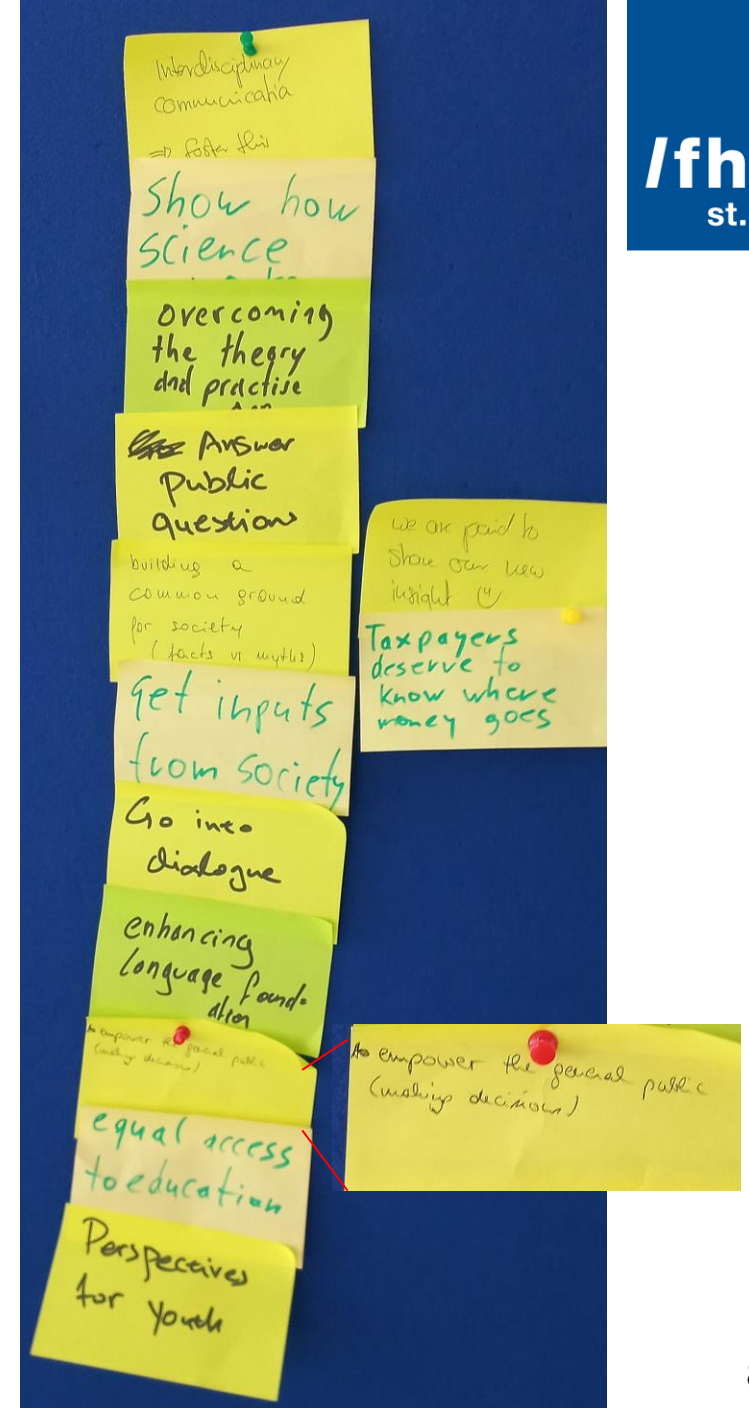
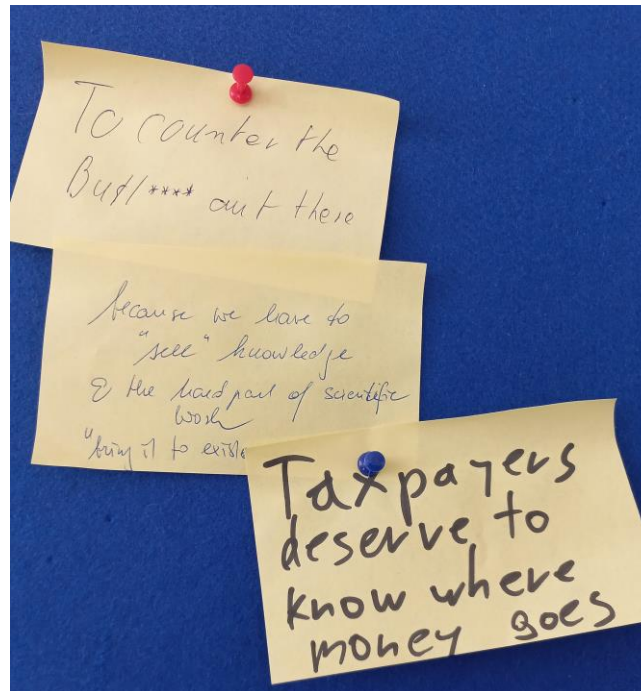
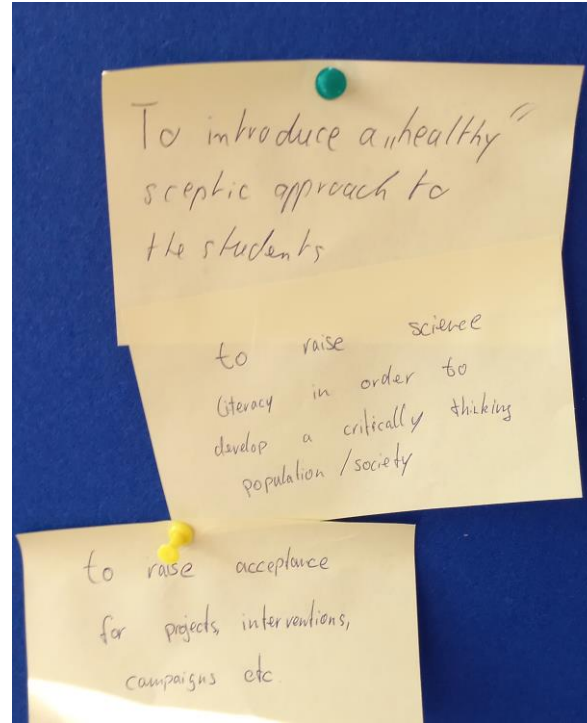
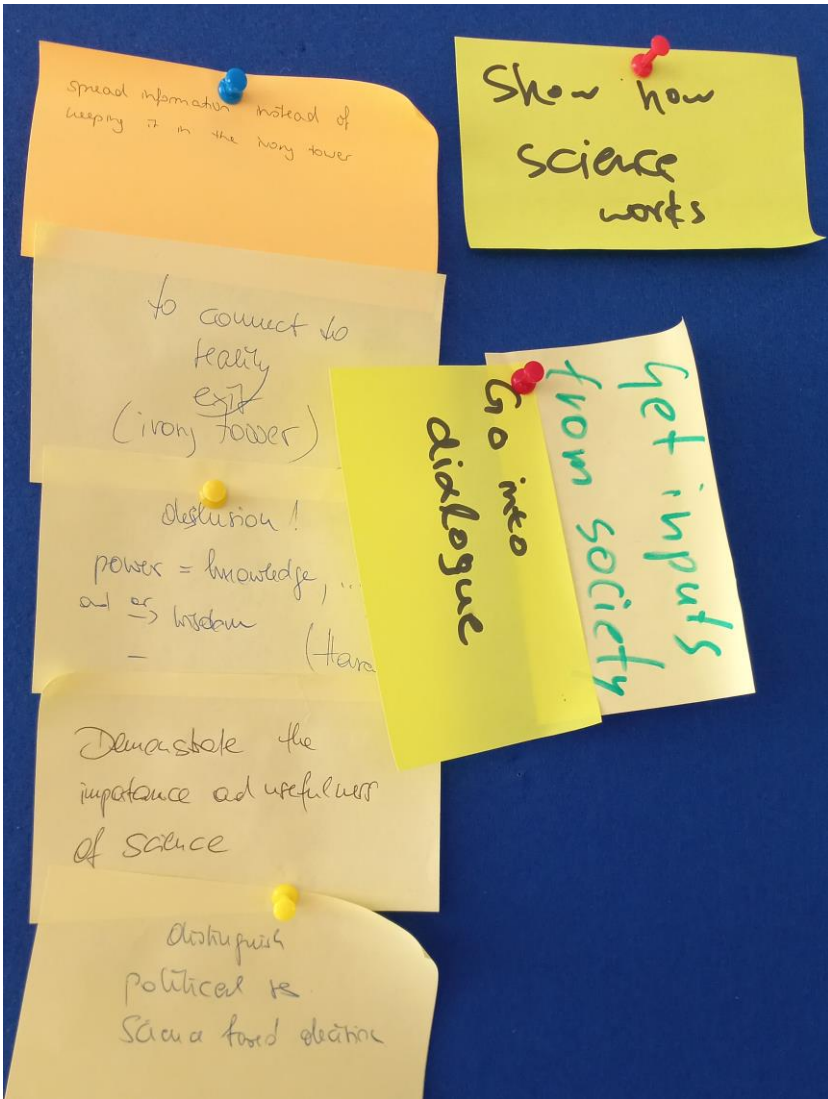
- **Who are you?**
 - Name
 - Role at STPUAS
- Your experience with **bad** or **very good** science outreach





WHY?

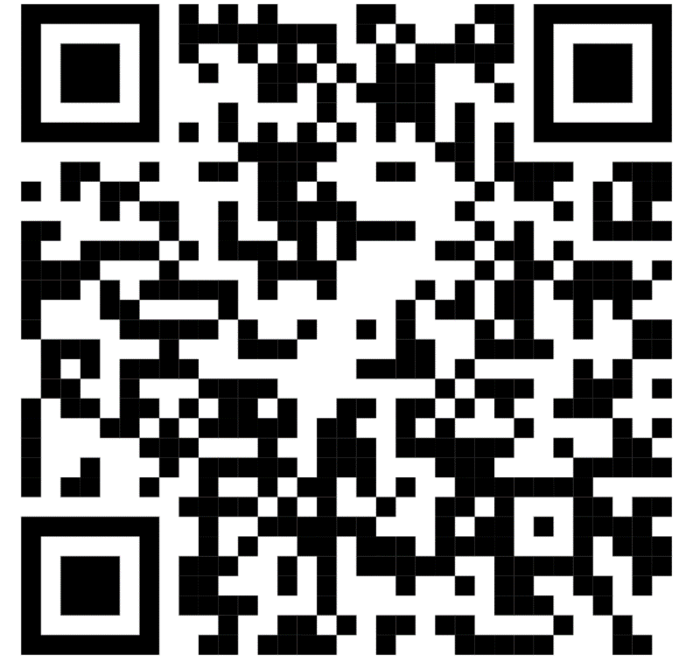
Your Answers! ✨



The importance of simple language

Excercise:

- Try to explain your discipline using the ten hundred most used English words
→ <https://splasho.com/upgoer5/>
- If you like, please send the text to us:
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Even German can be simple ;-)

Some useful links for German texts:

- <https://portaleinfach.org/einfach-schreiben/>
- Überprüfungstools:
 - [Lesbarkeitsindex \(LIX\)](#)
 - [Hurraki](#)
 - [Experte.de](#)
- Vereinfachung per KI: [LanguageTool](#)

Universities' 3rd Mission

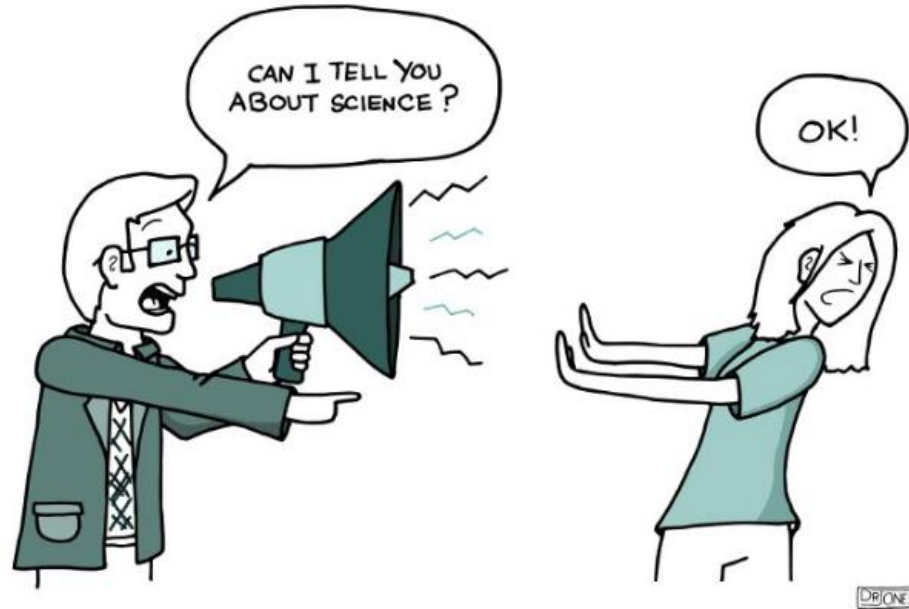


Priorities of 3rd mission

- targeted use and transfer of academic knowledge to help resolve diverse societal challenges
- transfer of technologies and innovations in the form of cooperation with public and private enterprises.

Who has a deficit?

BUT: Knowledge alone has only small effects on science skepticism (*Kearnes M et al., 2007*)



„Deficit Model“



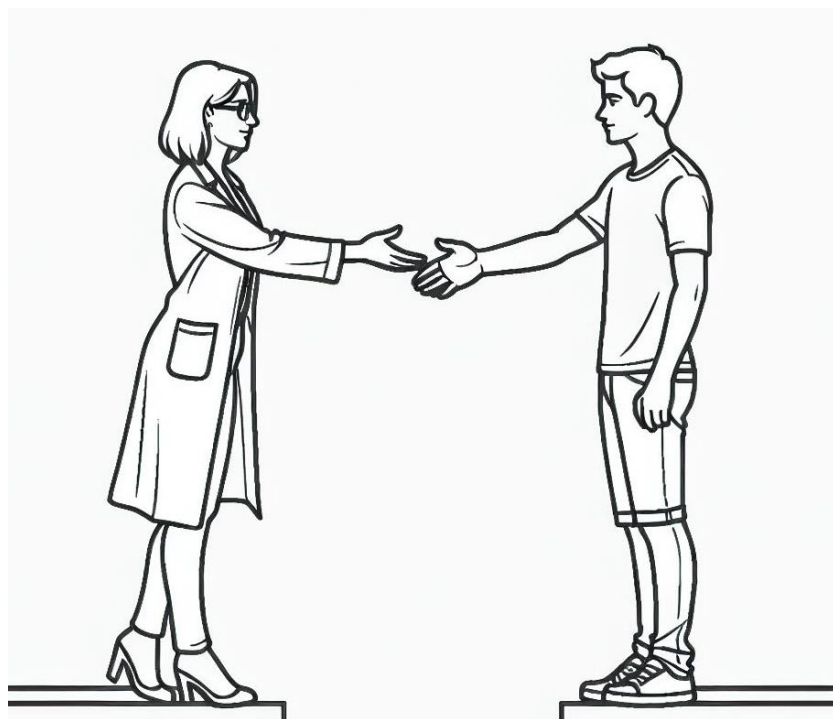
Partnership

- ✓ communication at eye level
- ✓ people want to be heard
- ✓ consider other factors that influence people
- ✓ „food for thought“
- ✓ in touch with societal need and concerns

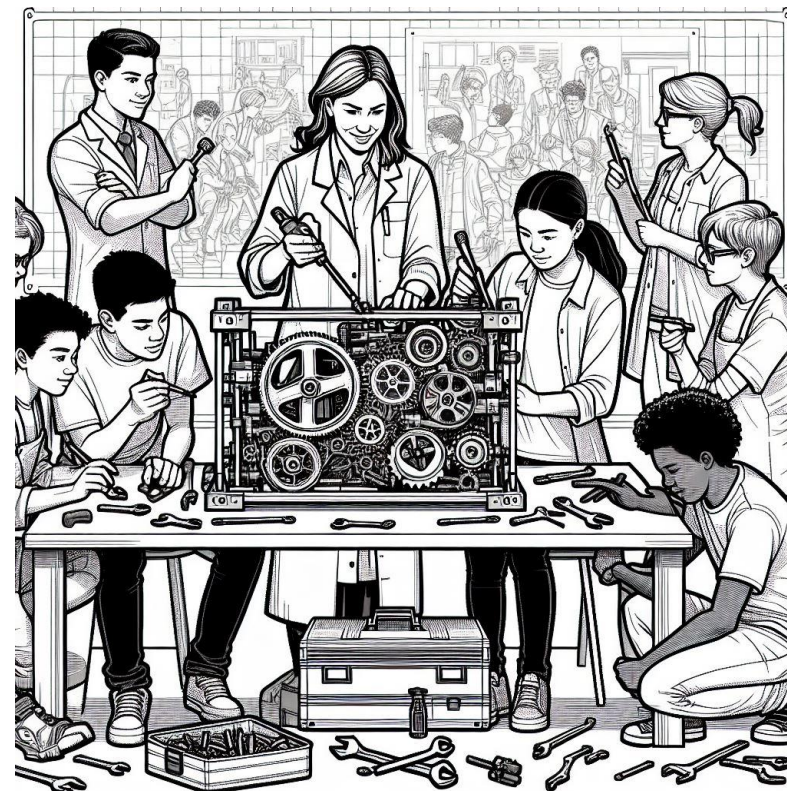
Image: Roberts J, 2020, Online

Outreach vs. Engagement?

Is it the same? Almost..



„Welcome to the world of science!“
Outreach



„C'mon, let's build this world together!“
Engagement

Communication vs. Dissemination vs. Exploitation

Communication

- **Inform & promote activities and results**
- For: citizens, stakeholders, media
- How: Conveying clear messages & Using the right channels for the right target groups

Dissemination

- **Make knowledge and results publicly available free-of-charge**
- For: scientists, industry, policymakers, civil society
- How: Publishing in Scientific magazines, conferences, Databases

Exploitation

- **Make concrete use of results for commercial, societal and political purposes**
- For: researchers, stakeholders, industry, authorities, policy makers, civil society
- How: creating prototypes/ software, sharing knowledge, skills, data

Target Groups

Kids

- Easy to engage and excite!
- Need „hands on“ activity, limited patience to sit still and listen
- Ask questions and listen, go with the flow“
- Make it a „cool topic“

digital
+-

Adults

- Limited time, Get interest fast & make it relevant
- Only here for the kids..
- Communicate on eye level, „My opinion matters!“
- „**Be** a boomer“*

digital
+-

Youth

- „Why should I care?“
- „Please no school!“
- Limited attention span
- „My opinion matters!“
- „**Don't** be a boomer“*

digital
+++

Elderly

- Real conversation wanted
- Often a lot of interest and knowledge
- Communicate on eye level „Don't think I am senile, but accept that I have different starting point“
- Time to listen

digital
-

Target Groups: On top



Educationally disadvantaged/ „Easy to neglect“

Barriers & Reservations

- Do they know about the activity?
- Financial and organisational hurdles
- Reservations entering a UAS
- Uncertainty about the format/ What is expected of me/ Do I feel welcome?
Please use accessible language!
- May have individual challenges (e.g. dyslexia..) with little support

Kids

- Easy to engage
- Need „hands on“ and limited patience
- Ask questions and „go with the flow“
- Make it a „cool“ activity

Youth

- „Why should I do this?“
- „Please no social media“
- Limited attention span
- „My opinion matters“
- „Don't be a boomer“ in the

Target group activity

- Pick one activity from the hat
- Choose the target groups that would fit best with this activity
- Which science engagement aims could you tackle with your activity?

Conclusions & Reflection

- One thing that you take away
- How can this be useful for your teaching activities?

THANK YOU



EUDRES