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ACTIVE

Toolkit

I. Methodology for teachers

MODULE 0 General understanding

Information, facts, truth and objectivity

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Module and Activity overview

Modules & Activities

ACTIVE

Module 0
General understanding
information, facts, truth and objectivity

Module 1 Finding reliable source of information and how to approach information on the internet	**Activity 1** First orientation and how to approach information on the internet (fact-checking)
Module 2 Values, norms and biases	**Activity 2** Values and biases
Module 3 Research phase – designing research, methods and collecting evidence	**Activity 3** Design own research
Module 4 Making sense of information	**Activity 4** Understand and find conclusions
Module 5 Designing action – formulating strategy	**Activity 4** Formulate strategy and act
Module 6 Evaluating impact	**Activity 4** Evaluate impact

MODULE 0: General understanding – information, facts, truth and objectivity

"INFORMATION IS NOT THE REALITY NEITHER KNOWLEDGE"

Structure of the module:

Topics covered:

- General understanding the concept of truth
- Data, facts and objectivity
- Fake news, disinformation and misinformation
- Information and data as evidence
- Problem definition and selecting the topic

Main topics of the module:

In this module we will explore following topics:

How to understand objectivity and concept of truth?

What are fake news, disinformation and misinformation?

How to understand facts, definitions and language in general?

How can we define information?

How to define a problem and why it is not that easy as it might seem?

How to select an appropriate issue/topic to implement the Toolkit?

1.1. Information as evidence

Information has always been essential to humans throughout the history and at the beginning of this module we can start with a citation from renowned historian Yuval Noah Harari:

"The last thing a teacher needs to give her pupils is more information. They already have too much of it. Instead, people need the ability to make sense of information, to tell the difference between what is important and what is unimportant, and above all to combine many bits of information into a broad picture of the world."[1]

Yes, first we need to have a reliable information to be able to make relevant and responsible decisions. But we need to keep in mind that data collection and information gathering is not means by itself. And we should also keep in mind that decisions in this complex world is not possible to take purely based on evidence even we are talking about evidence based decisions (more in MODULE 4). So collecting and gathering information is important but only as the first step.

[1] *Yuval Noah Harari: 21 Lessons 21st Century What Kids Need to Learn Now to Succeed in 2050 (accessed in April 2022)*

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1.1.1. Why evidence

The mindset that the information we are collecting should be deals with as an evidence will help us concentrate on the quality and relevance of the information not just during the process or information collecting. But also when assessing and making sense of information, formulating conclusions and in the phase of reflection and evaluation.

Information we are looking for should be convincing, supported by evidence. Our aim is go beyond fact-checking and find accurate, reliable and relevant information suited for our issue/purpose.

What is information

There are many definitions of the term information. But many of them we do not find appropriate, like analytical, subjective or objective information or that information is knowledge.

- Knowledge requires learning and such is broader then information. Knowledge is theoretical and/or practical understanding of a subject matter with capacity to be used for specific purpose (gives answer to "*How*"). As such is based on interpreted and processed information and/or experience acquired through learning (for more see below the making sense of information chapter below).
- As information in the sense that is most used (see below) is just a representation of reality (some testimony about reality) and not reality itself we would be very careful to talk about "objective" information.

For our purposes we propose to pint out two ways how the term Information could be and is in general used:

a. Information as processed data – information as processed, organized and structured data. So something that is (or can be) comprehended by rational inquiry, intellect and thinking. What is important is that such information can be articulated in language (or math/algorithms as specific type of language). In this sense information is representation of reality based on or findings and interpretation and not reality itself.
b. Information as inherent to reality – information as basic (organizational) component of reality (or living organisms at least). For example we can point out information inherited in DNA or muscle memory (when repetitively doing some movement/sport). It is good to be aware that we as living organism contain much more information than is just "have" in our brains and that it is inherited (genetically) and also acquired during our life and therefore influenced by what we do, eat and so on.

As we are now concerned about collecting information and making sense of them we will use the term information I the sense of ad a. above as processed data. But we will also cover the theme concerning importance of our experience and emotions as we humans are not just rational data processing machines.

1.2. Understand data, facts and objectivity

1.2.1. Some definitions and concepts concerning data and information

Oxford Dictionaries has declared "post-truth" as its 2016 international word of the year by, which defined the word as "*relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief*."

The disinformation a misinformation are posing a threat to liberal democracy as misinformation or constructed fiction is being used to manipulate public opinion and decision making. Dissemination of disinformation, misinformation and conspiracy theories is in the current environment closely connected with the internet as one of the main distribution canal for sharing and distributing information. Not that only anyone can "produce" and disseminate information to wide public but also algorithms that are running the social media favor speeding disinformation a misinformation. In this environment we do not face just "war of information" but a "cognitive war[2]" where our (human) cognitive predispositions are exploited and misused for someone's purposes.

It is another situation with dictatorship or regimes were the media (television and/or newspapers) are fully under control of the regime and thus setting the narratives and influencing public opinion (as in Russia or Hungary).

[2] Term used by NATO: https://www.nato.int/docu/review/articles/2021/05/20/countering-cognitive-warfare-awareness-and-resilience/index.html

Definition

What is a definition and what purposes definitions serves is by itself very interesting topic and it is quite important for understanding the usage of language and declared knowledge.

Generally definition is understood as (from: dictionary.cambridge.org):

- *a statement that explains the meaning of a word or phrase*
- *a description of the features and limits of something*

it is defined as (from *www.lexico.com):*

- *a statement of the exact meaning of a word, especially in a dictionary*

The term comes from latin: *dēfīnītiō* meaning a limiting, defining, definition, explanation or boundary or limits.

In this sense we would like to point out that the "definition" is actually a concept to set a boundary (limits) for "communication" purposes. We are using definitions to be able to communicate and understand each other so if anyone says something the other understands the meaning (with all the references behind it). Some definitions are based on common use of the term and some are based on scientific findings. But all are founded on common agreement between the users (even with disagreement the communication is about setting up a boundary).

EXAMPLE Example to show that definition that would be identical with reality is not possible and that is why we claim that it is a concept (meaning that words do not have precise meaning, but contextual). Just try to come with precise definition of something as simple as "chair" or "table". It is just not possible. So how could we came with precise definitions of something complex or profound as society, culture, true, consciousness..?

Why is this important? Sometimes people forget that the definition is "just" a concept and not the reality itself. So do not misunderstand definition with the reality.

Site comment: This is actually why Ludwig Wittgenstein in his Tractatus Logico-Philosophicus is coming to the conclusion: "Where one cannot speak, there one must be silent." Because he understood the limits and nonexactnes of the language and therefore later comes with the "language games".

SUMMARY) Take into the class Do not take words and terms used for granted. Firstly because they are not (they are contextual) and secondly the one using the term can have in mind different meaning than we might anticipate. Therefore invest to see the real meaning behind the words of the speaker and do not anticipate. And also be aware of the limits of language itself as the words do not represent the reality but are just pointing at the reality.

As always with definitions, we could find different concepts and approaches. To conceptualize some of the key terms to suite our purposes we propose to use following terms in following meaning:

First we should point out two main distinction lines:

1st question of deliberatednes, purpose and intention

2nd question of facticity (false and true)

Misinformation vs. Disinformation

Misinformation: false information that is spread (or received), regardless of whether there is intent to mislead.[3]

Disinformation: deliberately misleading or biased information; manipulated narrative or facts; propaganda[4].

So the difference is in the intention. But as the disinformation can be driven by biases and the purposefulness or intention can be little tricky question. Important about disinformation is that it does not have to concern just an information but also narratives or propaganda that is framing the issue in deliberated (intended) direction.

There is no consensus how to define term Fake news and that's also because the meaning evolved over time. It used to be used to describe satirical (made up) content which was not intended to inform and so it was not actually news at all. Currently we can point out two different usage of the term:

Fake news taken literary: literary "fake news" as deliberately fabricated false information. We could say fabricated lie.

Fake news as general term: generally false and/or misleading information.

As "fake news" are mostly not entirely false (fabricated lie) and "real news" is not always flawless[5] it is not easy to establish strict line between these two[6]. By this we are getting to the question: What is fact, what is false and true? We are proposing following definition of the term fact and explaining why in the comments below:

Fact as data: fact as data representing or describing events or properties of something that exists or existed. Fact as basic data gathered about events or properties prior to interpretation*.

**IMPORTANT* Someone could argue that in reality no one can deliver data without interpretation as we have to choose and use specific method to get the facts. And we would agree. So keep in mind that data (facts) had to be obtained through some means (method) and such are just a representation of reality. Therefore we would not say that fact=true(reality).

[3] From: www.dictionary.com
[4] From: www.dictionary.com
[5] Potthast, M., Kiesel, J., Reinartz, K., Bevendorff, J., & Stein, B. (2017). A stylometric inquiry into hyperpartisan and fake news. from https://arxiv.org/pdf/1702.05638.pdf (see on page 4)
[6] As we can for example see at the fact checking pages like Snopes which are rather using scale to distinguish "true" and "false" statements (see alto below the practical part)..

EXAMPLE For example if I measure high of myself. Someone would declare "*I am 175 cm tall for fact,…it is true/reality*". Even I did my best when measuring myself still we can ask: Am I really 175 cm tall? How precise meter/device I used? Did I measure myself in the morning or in the afternoon? Is it exactly 175 cm or it should be 175,4 cm? So we can see that even with some quite easy and directly measurable task of what is "true" and fact is not easy. And we can imagine with complex issues concerning societal topics it is even much more complicated. Therefore we propose to understand facts as data gathered using specific approach (method).

(SUMMARY) Take into the class It is better to understand facts as data rather than true, reality itself. In this way we can analyze and asses the properties of the facts (data), its validity and relevance according the way the fact were obtained (methods used) and the relevance for the issue we are dealing with. If we take into account our knowledge about misinformation, disinformation and face news we should also take a look at how (method used), why (purpose, intention), by whom (probable biases) the facts were obtained and are presented and for what purposes. Later on we will add also a dimension of consequences (impact).

What is then the truth? Oxford dictionary is in one of the definitions saying that true or truth is "that which is in accordance with fact or reality". As we showed how it is with facts we would hesitate to use such a definition because it is masking that the "facts" are just pointing out on something in the reality but they are not reality itself. And then we can arguably hesitate to use the term "true". Of course it is and will be still called "true" something corresponding with reality but it is quite important to acknowledge this quinine understanding that is actually the Truth:

The true and truth: The truth is simply what is, the reality itself. We might call this the Truth. And term truth leave for fact corresponding to this reality.

SUMMARY) Take into the class With the understanding (acknowledging) that the true is what is, the reality itself. We can understand that no one can have or possess the truth as is commonly said: "*I have the truth*". With such understanding we can further promote open communication and understanding of different points of view. But still keep healthy skepticism (see below). Only by this approach we can promote seeking and exploration which will be otherwise ended by stating something as definitive. That would be a dogma which could not be further explored.

What is then objectivity and can we obtain objective facts? It is hard to call anything 100% objective if we understand that gathering facts is inherently connected with an intention and method standing behind obtaining the facts (data). And even simplest observations can be obscured and have an intention or reason in them (we do something because we wanted to or find or self in a situation doing so because of something).

Also as we have seen with biases (see Module 1) we could see that we can limit biases but it I close to impossible limit them absolutely. We are still and we will be approaching the issue from some point of view, with some prior experience and with some purpose.

EXAMPLE We could understand objectivity by comparison to picture in the lenses of camera (objective). Even it is not fake or fabricated image of reality (the lens is pointing at the real objects) we can still as what exposure and time the photographer used (the method), what camera and lens was used (equipment) with what intentions and purposes he took the photo. So we can see that even that

the photograph was "objectively" taken in some place it is just some representation of reality and not reality or truth itself.

EXAMPLE What is "objective" and what is "subjective" might be confusing and is often misunderstand. If John says: "I hate this…" or "I like this politician". Is it objective or subjective? We should ask what exactly. Yes these is John´s subjective feeling or opinion. But we could say that objectively (if John really expressed it) John is expressing he hates this… or that he likes this politician. In this sense subjective feelings/opinions are becoming objective and part of reality. So be careful to dismiss such subjective statements as irrelevant because they are very much relevant and "objective" (real) part of reality and as such are influencing the reality. (e.g. sociology could show us how are such attitudes in society studied).

As for the term **objective** we propose to use it in the two following meanings:

- (our perspective) In the sense of transparency. So in the case of the lenses of camera (see the example above) we would as objective perceive that the photographer would with the photo provide transparently the information where, when, in what circumstances, and with what intentions was the photography taken.
- (journalists perspective) Present the issue from multiple viewpoints and presents all sides of an argument. This is the way journalists work. They try to show the perspective of all relevant actors. One problem is that you can newer cover all the viewpoints/arguments but still this is a good way to objectify complicated topic. Second problem is that by perusing this sense of objectivity it (almost inevitably) leads to comparison of not comparable positions (arguments). Because as the journalists try to stay objective by giving space to every side the same way they dismiss to critically examine the augments and evidence provided. So one of the party may (and often does) benefit from better rhetoric that is based on populism/fake-news/disinformation etc[7]. (this is mainly problem of reporters as investigative journalists should go beyond the expressed arguments of the actors involved).

(SUMMARY) Take into the class This understanding of true and objectivity (see above) is not about that everything is being relative. It is just to acknowledge that we are the ones who gather (generate) the facts using specific methods and using specific tools and doing so we follow specific purpose or intention (consciously or not). Even in the science what was fact and considered true 50 or 100 years ago does not longer holds. But even that objectivity is questionable concept we still can distinguish between facts and fabricated (fake) information. Instead of arguing what is and what is not objective we propose to concentrate on the quality of data and information and asses its validity and relevance (see below). And besides to declare something as true or definitive fact/true we suggest to use sentences like: To the best of our/current knowledge. And even we argued that using terms like "objective" or "true" is quite problematic, be not afraid to use them (as we are used to it and cannot erase them from our language) but please keep in mind not to mistaken them for unquestionable

[7] As a good example where these was actually professionally manufactured and fully exploited is the Tabaco and Oil industry with their denials of connection between smoking and cancer and man contribution to climate change. This is very good documented by scientific research and investigative journalist (see for example BBC podcast well covering these topic: How They Made Us Doubt Everything).

"objectivity" and definite "truth". If we are working with data and information keep in mind that they are just representations and conceptualization of reality not reality itself.

1.3. Problem definition and how not to solve wrong problems

How to define a problem and why it is not that easy as it might seem?

How to select an appropriate issue/topic for the Toolkit to be used?

The **problem** represents "a situation, person, or thing that needs attention and needs to be dealt with or solved"[8].

Usually we start with solving "a problem" without actually even recognizing that behind the problem definition there are already some assumptions and perceptions of the situation. As we are not in many cases aware of how the problem was defined and what assumptions were involved we might often try to solve the "wrong" problem. Wrong in the sense that solving it we would not actually achieve our goals.

EXAMPLE Example could be investing our effort in to research that focuses on irrelevant aspects of the topic researched (see more in Module 3).

(SUMMARY) Take into the class Before defining the "problem" we should first examine the issue and have some understanding what is (or possibly) might by important (for more detail see Module 2 and 3).

[8] Cambridge Dictionary