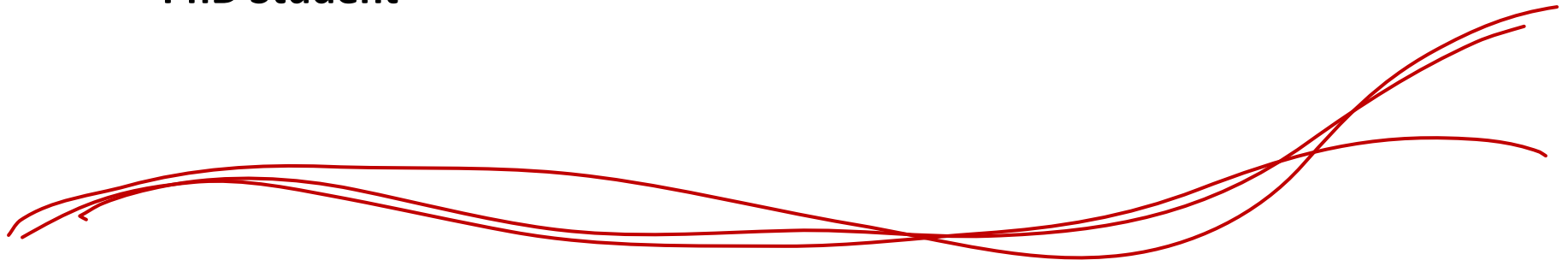


ECSITE 2.0 R/EVOLUTIONs

ARE TEENS THE NEXT CHALLENGE FOR CONTEMPORARY MUSEUMS?

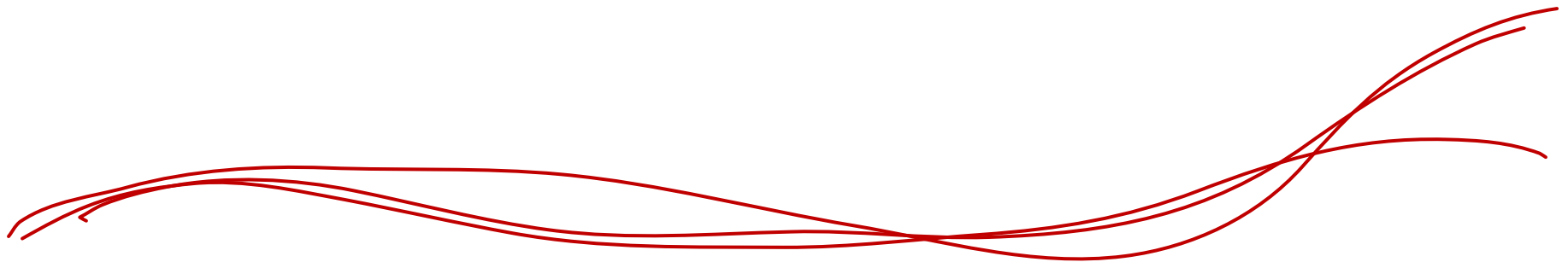
Teenagers, emergent scientific citizens?

**Luis Barbeiro
Kings College London
PhD Student**



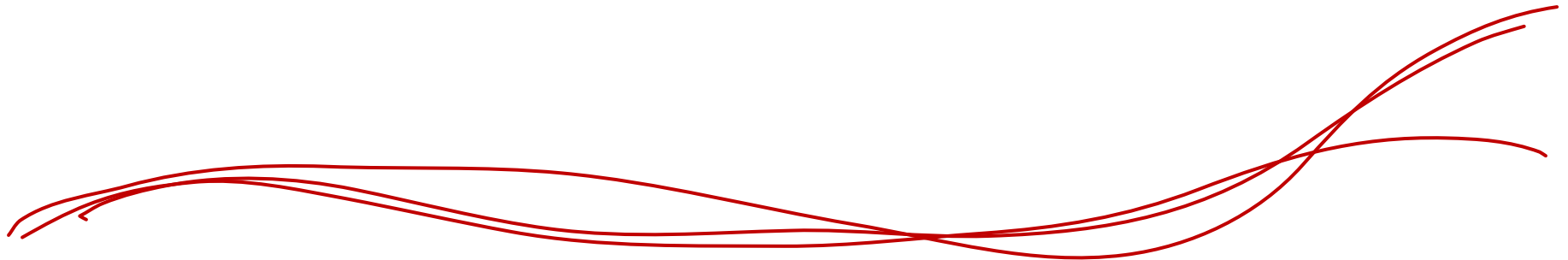
I

Youth, identity and identities



Some **traditional ideas on youth**

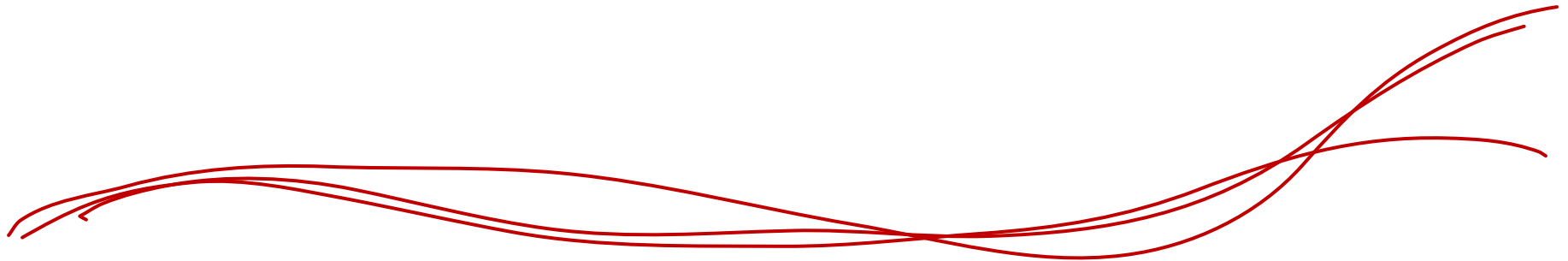
- Youth as **“stress and storm”** , Stanley Hall **1906**
- Youth as **“identity crisis”**, Erikson **1964**
- The category of **“teenagers”** is a **market research invention of the 50s**



Youth is **not an essential** trait in development.

In diverse **cultures** and at different **times** the idea of Youth is **different ... or doesn't exist** at all!

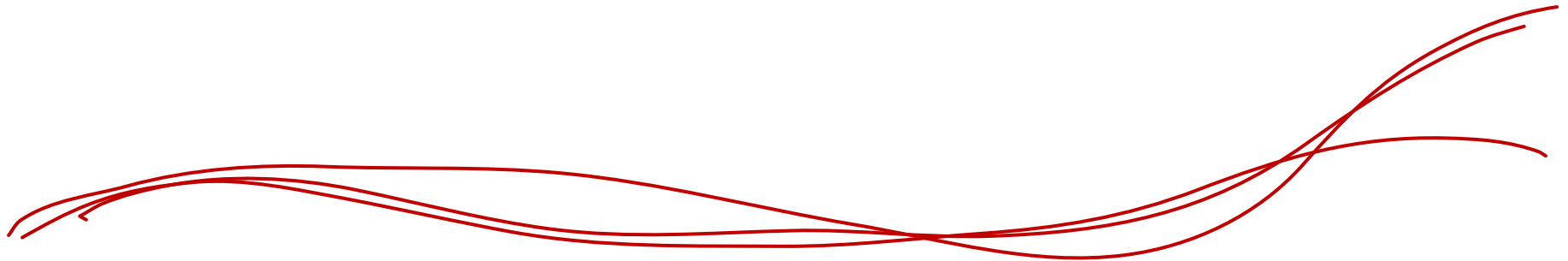
The idea of Youth might be best understood as a **cultural, historical term**



According to these views after this **“youth stage”** full of searches and **uncertainties**, you find your identity, it becomes **stable, coherent**.

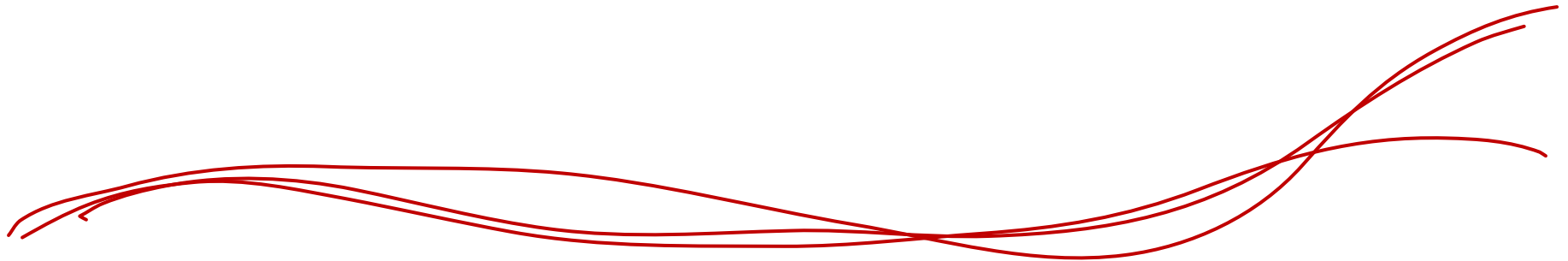
“you finally become you”

So Youth is something like **a time where you are not yourself**.



This idea of youth tends to **downplay young people**, doesn't take them as **full actors** of their lives and participants in society, with **legitimate concerns**.

Maybe youth is **not a stage**, it's as **troubled as any other** times of our lives and the coherent **stable self** that comes after it **never seems to appear**.



Other ways to think about identity

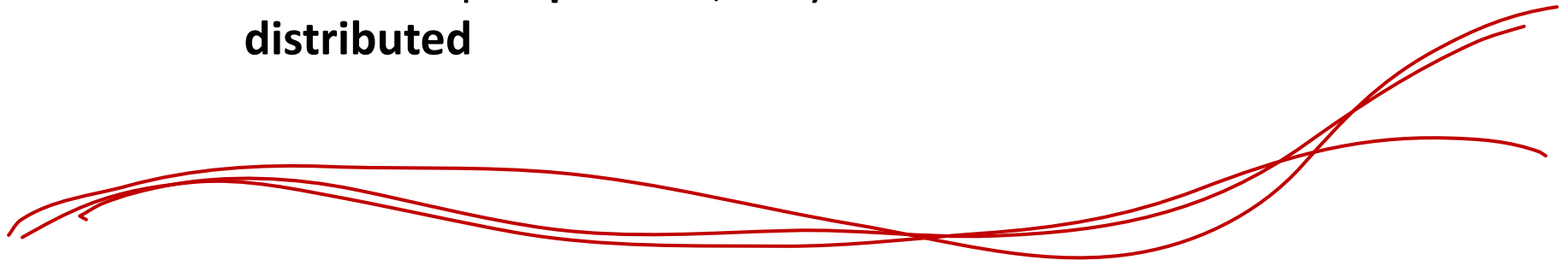
- not stable, not consistence, not singular but
multiple, hybrid, heterogenous - Identities

-not about what we are,
but **what we do ... and ... what we have**

They are **enacted, performed**

Their stability is **provisional** and **negotiated**

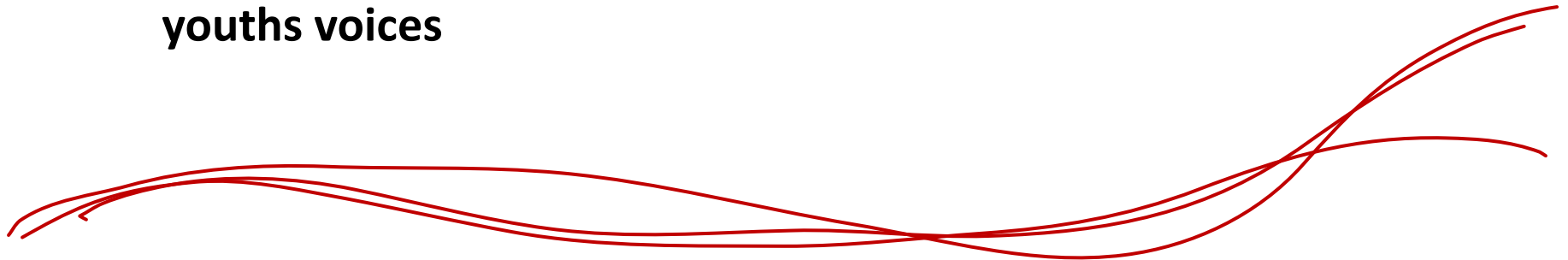
- Identity/ies don't come with time,
but develop **in practice**, they are **situated** and
distributed



We are always doing **Identities work**.
Identities are **formed and disappear**, some last **long**, others less, some are more **local**, others more distributed, some **encompass** others, some **cut across** others, they are a product of our **interaction with the cultural resources of the world**.

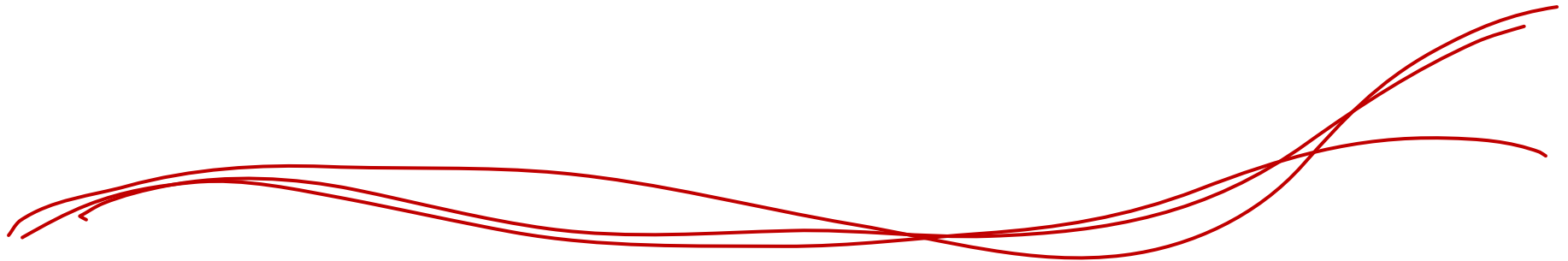
So, the lack of stability and coherence that makes Youth less accountable is **no more than a characteristic of lives, young and adult**.

It should not be a **argument** for not taking seriously **youths voices**



Conceptualizing identities in this way
doesn't mean that young people don't feel this "youth"
category

"youth" or "teenagers" are real as a **public identities**,
and young people are **pressured to "fit"** in these public
identities . They have to **work their identities** around
acting young

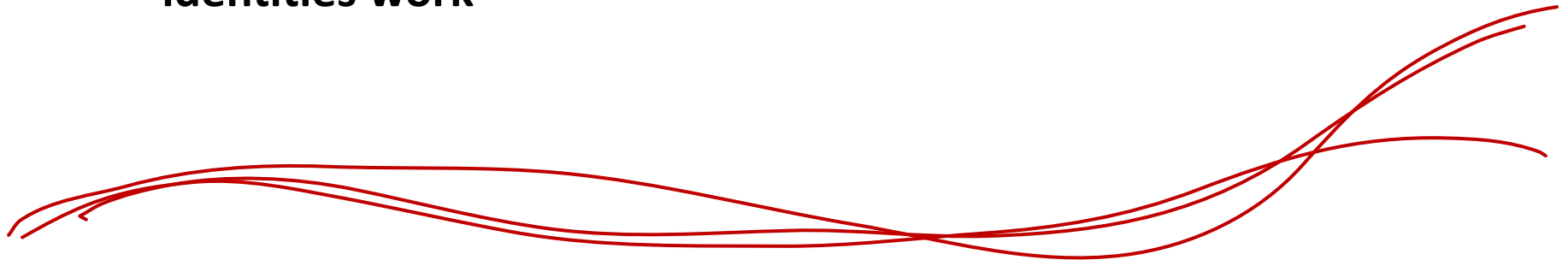


But young people are **not only “concerned” about their youth identities.**

There **are other groups** that require their attention.

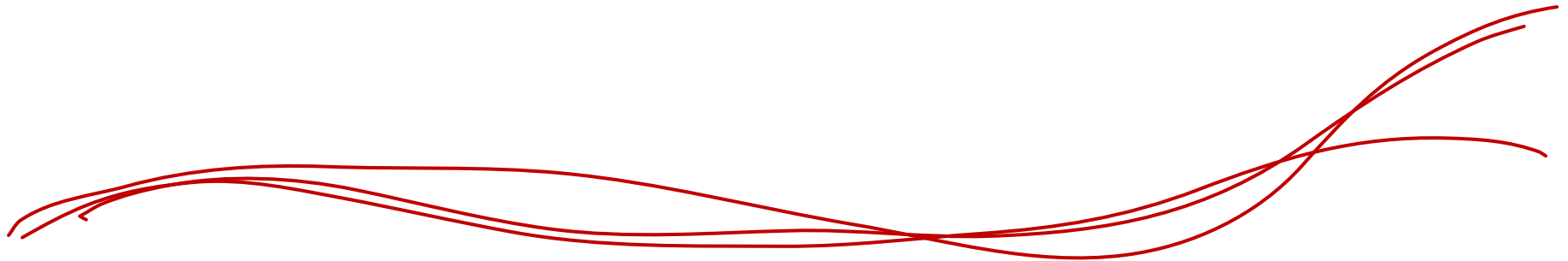
They also do identity work on behaving as a **boy or girl, black or white**, playing the **friend**, the **daughter**, performing as a responsible **student**, acting as good or bad **citizen ...**

These public identity categories and their associated cultural resources are **available for young peoples identities work**



I do not mean by this that identities are “**ready makes**”,
to use out of the shelf

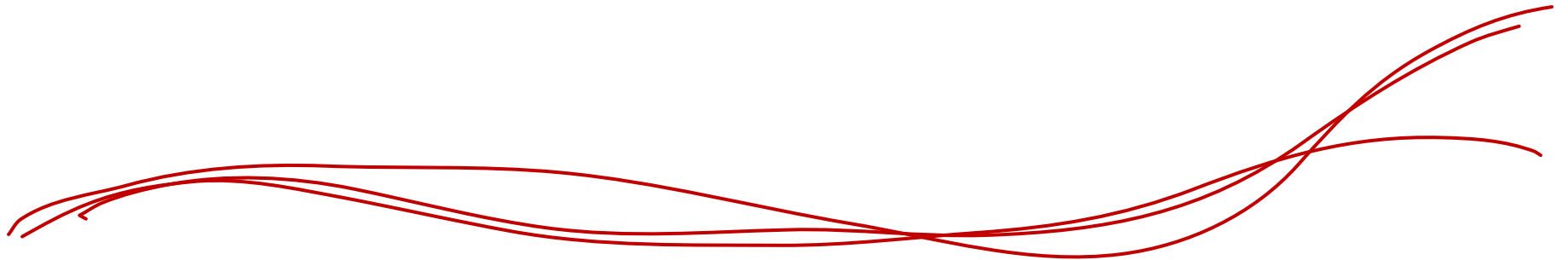
young people **don't just fit** in identities provided to
them, they **reinterpret** the cultural resources associated
to these identities, **relate them to their own identities**
and **reenact** them publicly.



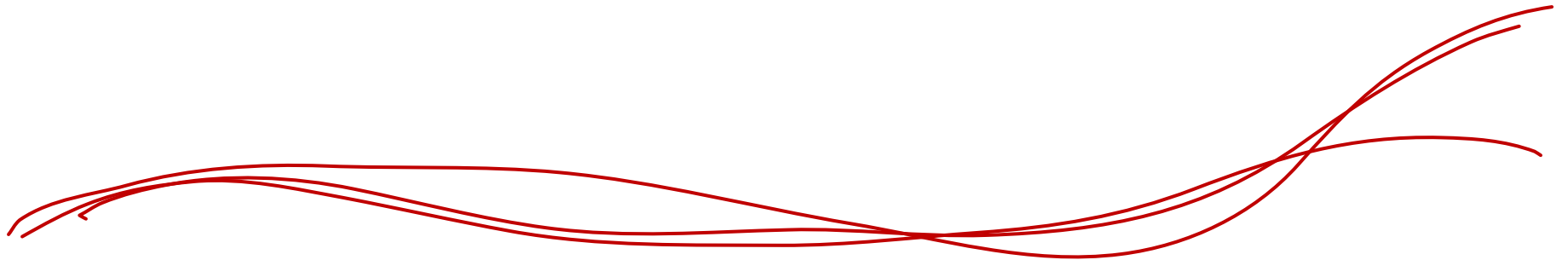
II

Identities and Science

- two models of science identities



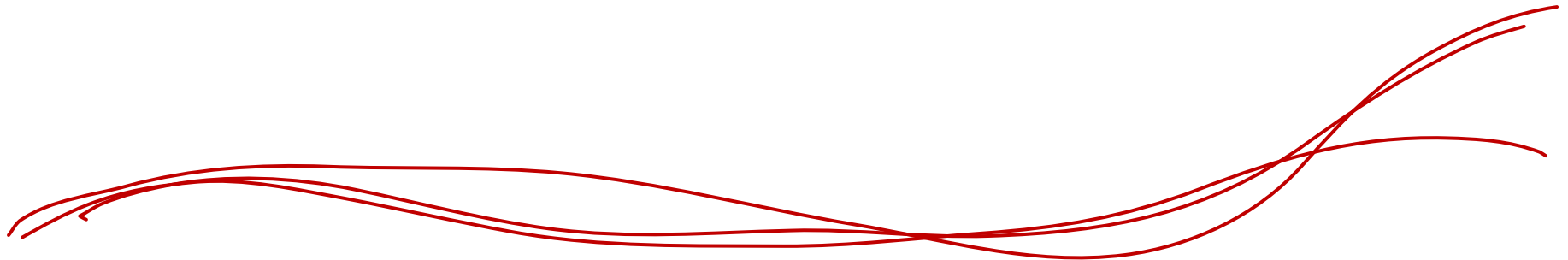
What are the public identities related to science
- “science identities” available for young
peoples’ identities work?



From the point of **view of science education** two models of the science citizen – “**science identities**” have developed alongside democracy. (Roberts, 2007)

The most promoted model, is **inspired by "science, that is, the products and processes of science itself"**, embodied in Benchmarks for Science Literacy
(AAS, 1993).

Essentially based on the idea that science is the **source of development**, citizens should “**think**” like scientists and **support science**



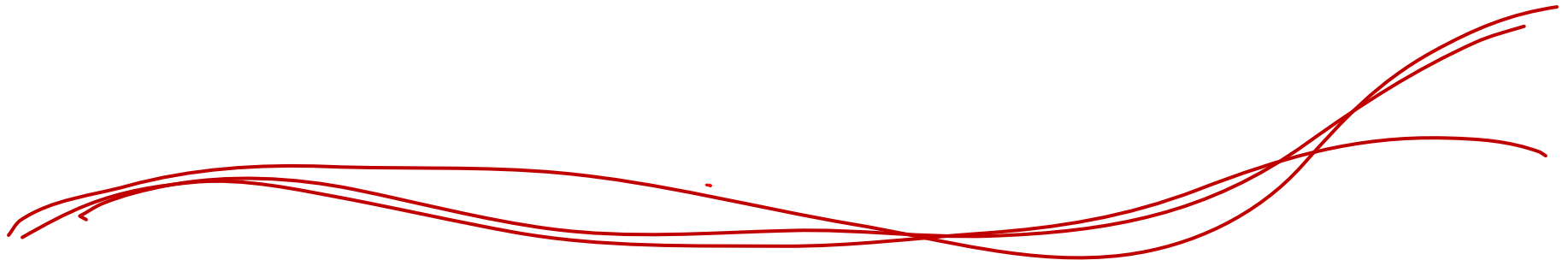
This model developed mainly from the **perspective of science and the scientists**

(Fensham, 2002; Lehr 2007).

And from particular situations of **democracy- from industrial revolution to cold war**

I would characterize it as a model where the

- the citizen is at the service of science



Nowadays there is a call for change

the need for a **different relation between science and society.**

- **Governments**

(House of Lords, 2000; EC, 2000; EU, 2004; DIUS, 2008)

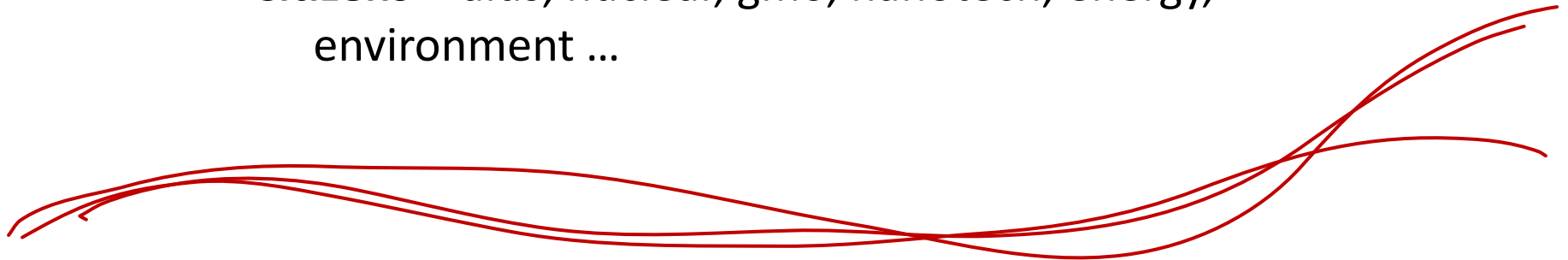
- Science related **institutions**

(BA, 1999; Royal Society, 1999)

- Science **education**

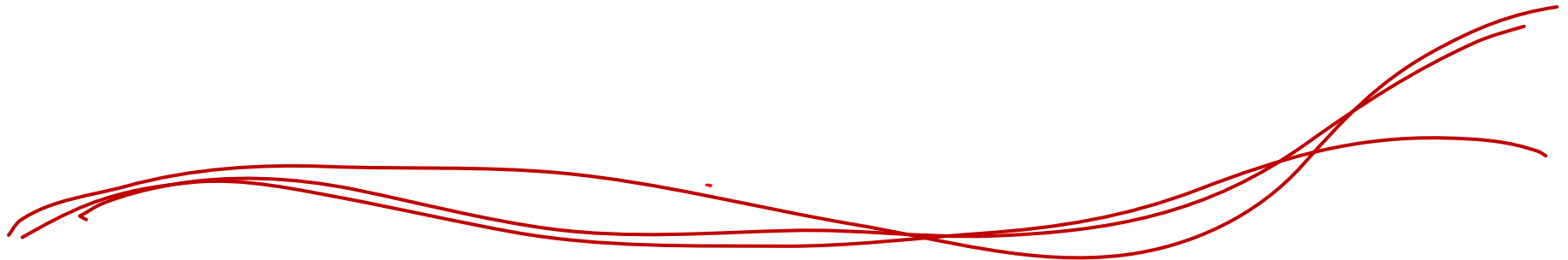
(Fensham, 2002; Osborne & Dillon 2008a; Roth & Barton, 2004)

- **Citizens** - aids, nuclear, gmo, nanotech, energy, environment ...



the PUS / PEST movement, one way / two way - Dialogue

But the model of the **citizens at the service of science**
doesn't seem to fit these calls for change (eg. Brickhouse, 2007,
Leher, 2007), specially from the **citizens point of view**.

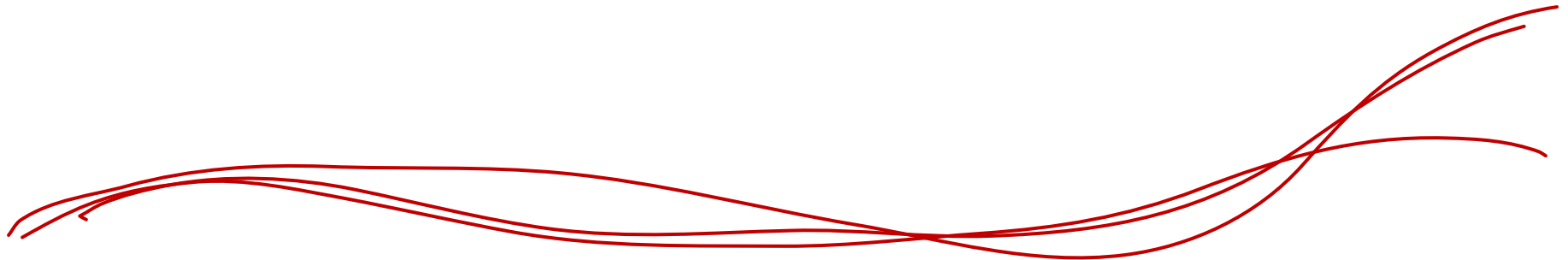


Is there another model?

The other model is concerned **"about science-related situations" that citizens are likely to encounter**, represented by Layton, Davey, and Jenkins (1986) or Roth and Barton (2004).

I would characterize it as - **science at the service of the citizen**

It's question is **"How can science make a better citizen?"**

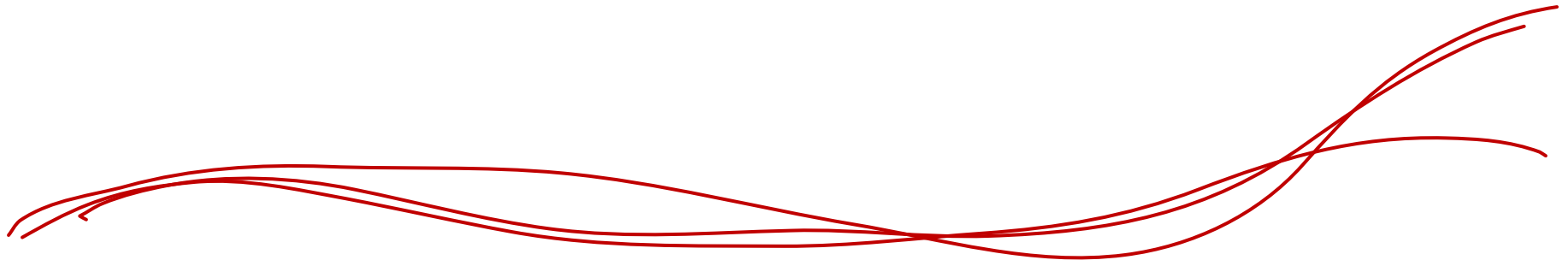


What could acting as “**better citizen**” mean?

a citizen who participates in the development of
democracy:

- which is concerned with **social justice**
- and is **sociopolitically active**

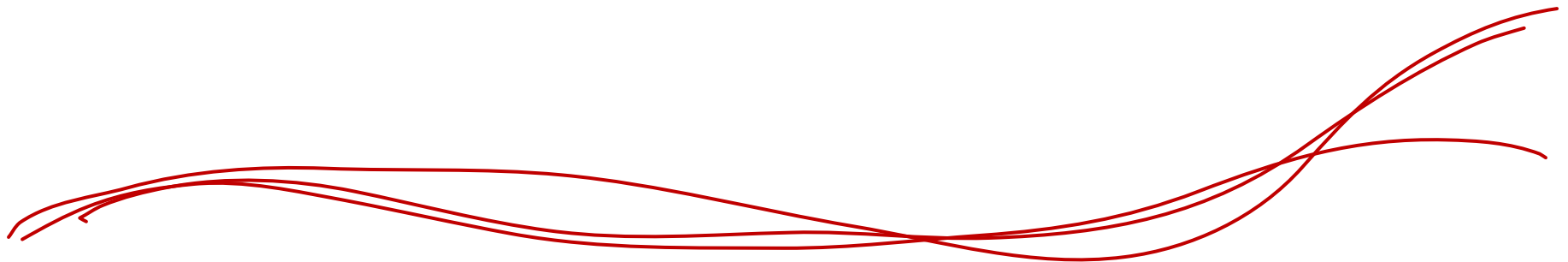
**How can science and the communication of science relate
to these ideas?**



There seems to be a **continuum** between these 2 opposite models of **Science Identity**

from “**citizens at the service of science**”

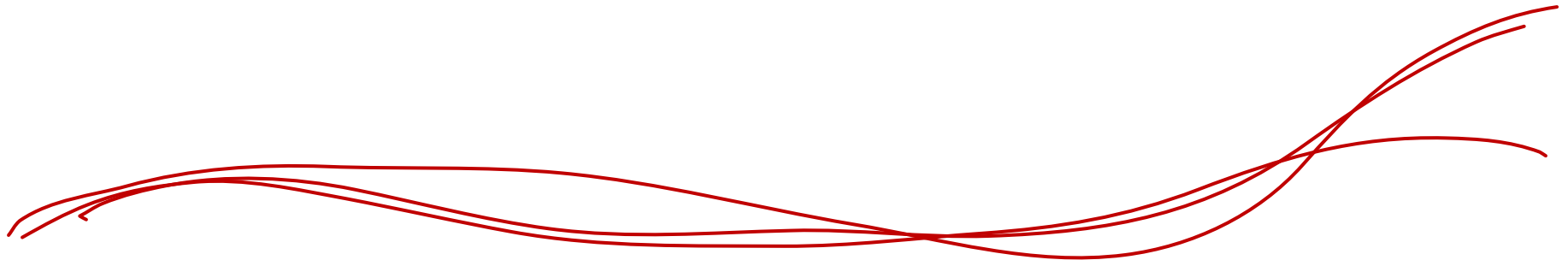
to “**science at the service of citizens**”



There is another difference between these two models. In the first science is asking citizens for their **unconditional support** and what is the second model **asking for?**

For citizens **participation in science related** issues acting as a **critical friend**.

Criticality would be citizens **obligation towards science**



two types of “science identity”

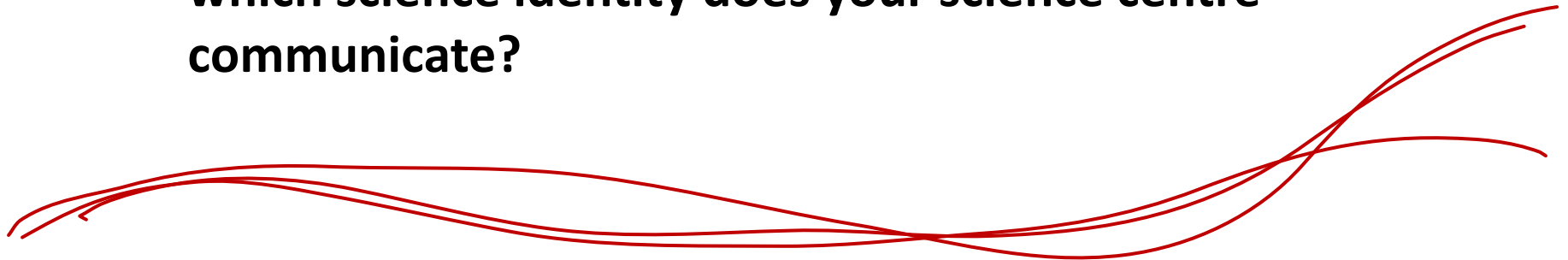
- Citizen at the service of science

- source of development
- think like scientists
- support science

- Science at the service of the citizen

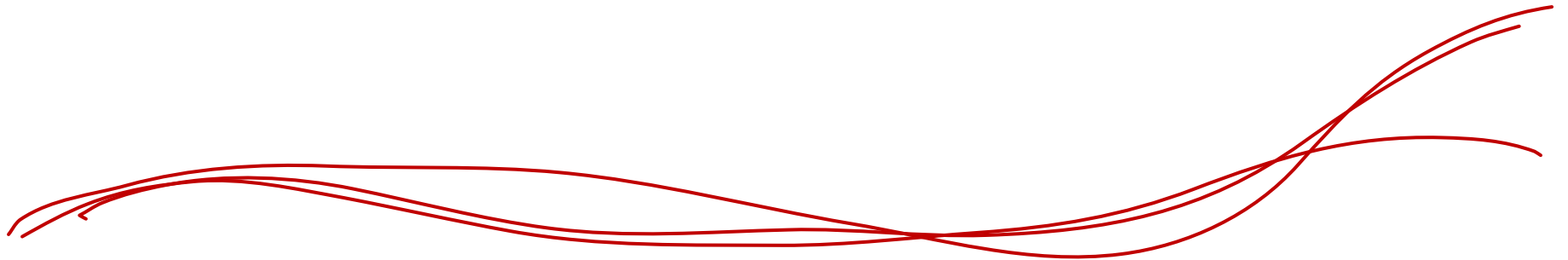
- social justice
- sociopolitical action
- criticality

which science identity does your science centre communicate?



III

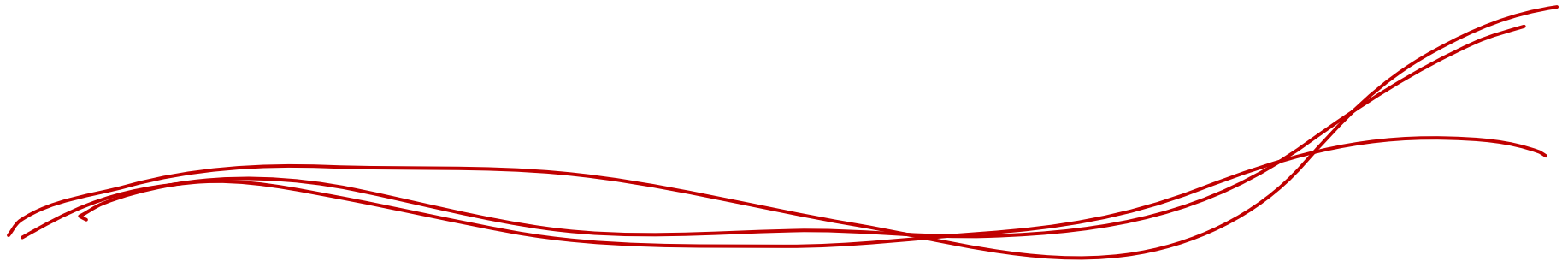
Doing identities work with science



I have just talked about 2 models of science identity that are **available for young people as resources for their identities work.**

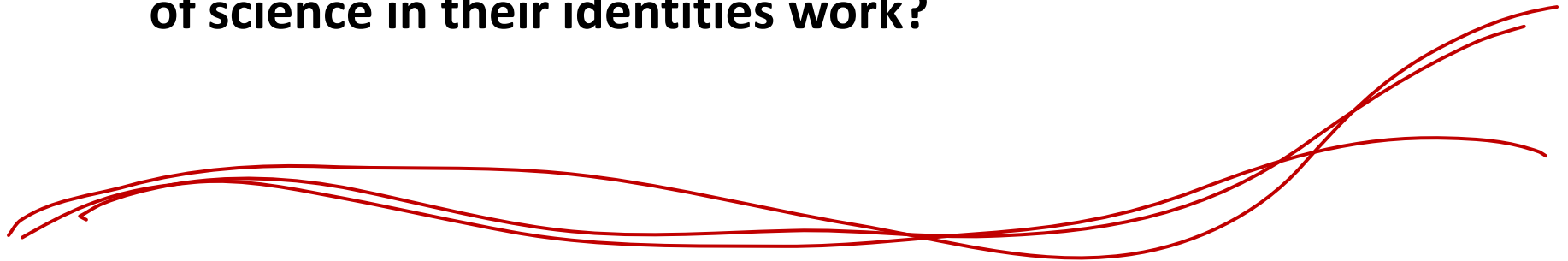
Where are they doing their identities work related to science?

Science and technology are so pervasive in everyday life (Michael, 2006) "there is **potentially no end** to the list of science-based **new combinations** for responsible citizens to engage with." (Elam& Bertilsson, 2003)



What young people **eat**, how they choose **transport**, what they use to **communicate**, how they manage **energy** and garbage in their houses, what forms of **medicine** they choose; the materials of **clothes** they wear, the subjects they choose at **school**, the lyrics of the **songs** they ear, the **TV** movies and programs they decide to see, the **museums** they visit, ...
how they enact their **life style**, are **resources for developing , where science is taking part.**

Are young people aware of this ubiquitous presence of science in their identities work?

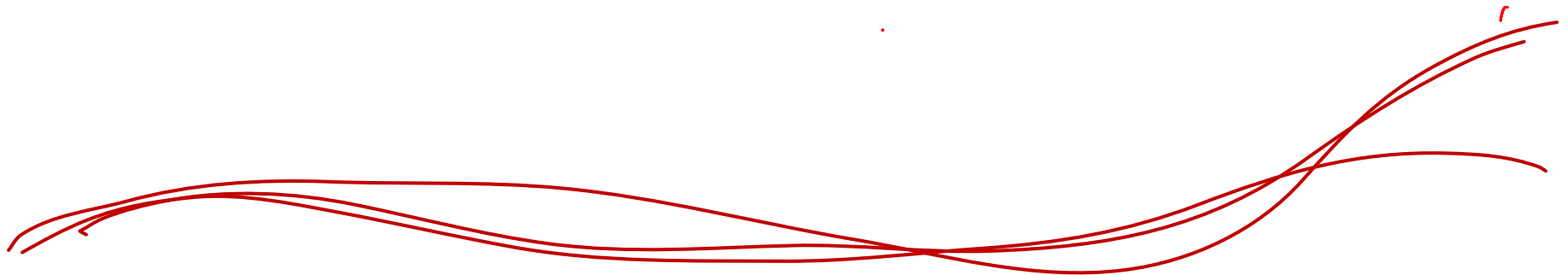


“Are teens the next challenge for museums?”

Museums could expand their relationship with youth but:

- **not by** communicating **prearranged “science identities” defined by someone else** (like the 2 models of science identities showed)

- **not by placing** young people in the position to **fit or to opt out of** these more or less **closed models.**

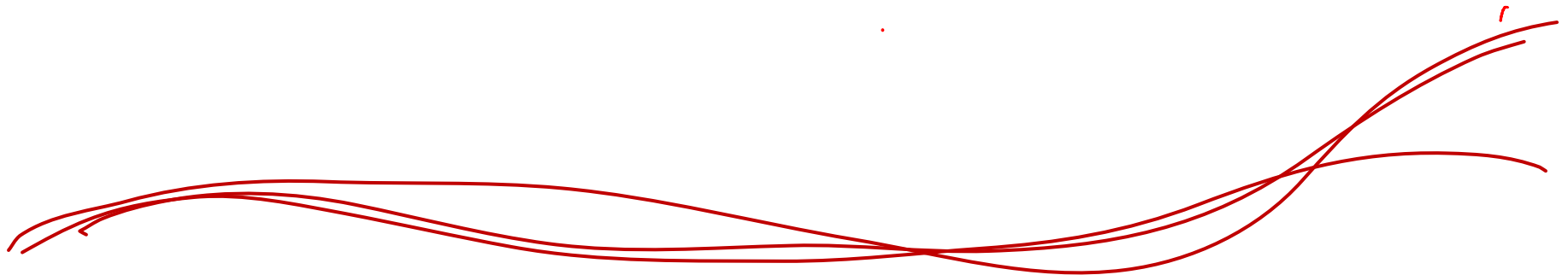


For science to be a part of young peoples identities,
science has to relate to their other identities

A “**science identity**” is something **heterogeneous**,
situated, developed out of **many practices** and **related**
to many other identities. A “science identity” is **not a**
singular category.

Museums together with youth should be
challenging closed science identity models

The challenge is to challenge



What Museums could do is to

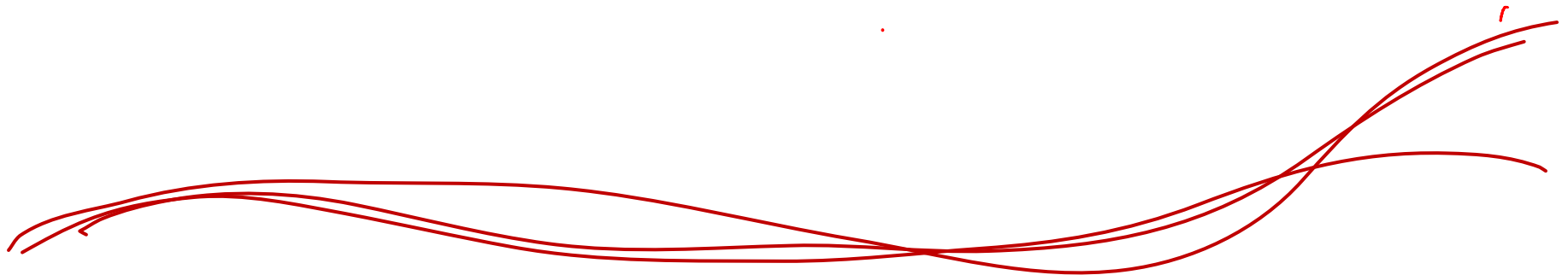
explore collaboratively with young people

the **endless combinations of science and their identities**

- gender, race, class, family, citizenship, friendship ...

that happen in **their everyday lives** and which are **their**

main concerns



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R/EVOLUTIONs

From
“science centres” to promote science’s development
to
“science in society centres” to promote society’s
development

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