

# Using Google Images, Maps and Earth to teach critical thinking

## Decolonising the curriculum and beyond

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Christoffer Guldberg has worked as an educator and pedagogue since leaving high school and going to work with intellectually disabled persons and businesspeople in Portugal, Denmark and Brazil, teaching music, English and theatre. Moving to Brazil to teach English he became interested in the war on drugs, race and racism in this country, and has since written both a Master's and PhD on this subject. The present teaching method was first developed while studying for a joint PhD in São Paulo and teaching on the subject of the war on drugs in Brazil. In addition to this academic trajectory, he has worked in counter-trafficking in West and Central Africa, and with human rights and democracy at the European Union. He currently works as a PGTA at University College London teaching Latin-American history and politics, and as Visiting Lecturer at City University of London, teaching Global Governance and Global Conflict Studies, as well as a tutor at King's Summer School. These positions have allowed for further elaboration of the below method.

### **Abstract**

*In this article I outline how Google Images and Google Earth can be used to visualise to students the constructed nature of legal and political concepts in law and international relations. The method consists of asking students to critically discuss the gendered and racialised nature of Google results when googling such legal, geographical, and political concepts as "drug trafficker", "international development", "Great Britain", or "Brazil", as well as discovering the different layers of natural, cultural, and political boundaries and connections that crisscross the world by using Google Earth.*

*As an innovative method for technology-assisted teaching this method can be used in both face-to-face and virtual learning situations to teach students critical thinking in a way that is both interactive and multimodal, while drawing on technology that students know from their everyday lives. The method can be applied*

**Guldberg, Using Google Images, Maps and Earth to teach critical thinking creatively by both students and teachers, and ideally should allow for students to become their own critical researchers, able to uncover the ways in which apparently neutral concepts are shaped by and shape global structures of inequality.**

**Keywords:** Technology-assisted active learning, war on drugs, race, environment, decolonising education, Google

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This article outlines an innovative methodology for technology-assisted active learning (TEAL), which I started developing before the pandemic, and have elaborated both in face-to-face teaching and in virtual classrooms.

The aim is to draw on tools that students use in their everyday lives to teach critical thinking and concepts to university students at all levels, but high school and adult education teachers will find it relevant as well. The examples I use are within the social sciences, and particularly international relations and critical criminology, but are applicable in other disciplines, including environmental studies, law, social work, international development, and healthcare, particularly because of how neutral (scientific) facts and concepts intersect with ideas concerning race and gender. This is perhaps most clear if Googling “nurse” and “doctor” and comparing the results.

Using technology in the classroom has recently been associated with the potential of distance learning, but there is a broad spectrum of possibilities for adopting technology actively in the physical classroom as well, known under the acronyms of TEAL, but also Active Classroom Learning (ACL), and North Carolina State University’s Student-Centered Activities for Large Enrollment Undergraduate Programs (SCALE-UP). For easy reference, I will refer to all these below as TEAL.

These experiences from such different areas as physics, social work and nursing have shown how such approaches to teaching promote both critical thinking and empathy (Braun *et*

*al.*, 2005; Lee *et al.*, 2019), and enhances grades (Brooks, 2011).

Within this context of scholarship and research on TEAL, my approach below comes from the experience of researching and lecturing on the war on drugs in Brazil, and I have subsequently elaborated it to teach critical thinking in international relations and global environmental protection to pre-university and undergraduate students at King’s College London’s Summer School and at the UCL Institute of the Americas.

As such, drawing on critical theory, the approach starts from the presumption that concepts are constructed, and hide and reveal aspects of reality. For this reason, in its most basic form, it consists simply of asking students to search for a concept in Google Images, and question what biases and limitations the result may reveal. In this form, it can be applied to a range of concepts, such as “international development”, “poverty”, “crime”, “nurse”, “doctor” or the examples that this article will focus on, namely, “drug trafficker”, “Brazil” and “The United Kingdom”. This exercise then informs a discussion on the way that space and subjectivity are socially produced in unequal relationship that are both discursive, while simultaneously shaping and being shaped by practice (Escobar Arturo, 1995). In this way, it is a practical and engaging way of decolonising the curriculum in that it seeks to eschew knowledge parochialism, hierarchies of knowledge, seeing knowledge instead as plural and dynamic (Fataar, 2018).

Before going on to these practical examples, I will start below by outlining

how my approach fits into existing pedagogies of experiential and multi-modal learning, and teaching through concepts. I will then quickly outline how this relates to critical theory and methodological reflection on distance and proximity from feminist standpoint theory and ethnographic method.

Moving to the teaching situation I will start by outlining how my approach can be operationalised in teaching the racialised and gendered dynamics of the global war on drugs by drawing on Google Images. Expanding this approach, I will move on to how the concept of the nation and national identity can be similarly problematised by drawing on Google Image results. This will allow me to move conceptually and methodologically to outlining some of the further possibilities of using Google Earth to teach democratic citizenship and the limits of international cooperation in addressing the collapse of the global environment.

### **Concepts and Critical Thinking**

A concept is a mental representation of a class of things (Cambridge Assessment International, 2014). This means that concepts both reveal and hide aspects of the objects that we categorise according to certain attributes to order the world, and our expectations of the world and other people, ordering in turn the ways we relate to other individuals as social categories (Murphy, 2002:2).

As such, concepts both aid us in understanding and navigating the world, while also being closely associated with ideology and power. Thus, ordering people and groups in hierarchies of, inter alia, nation-states, ethnicities, "races" and cultures, provides a sense of given, natural and a-historical essence to the framework of relations between such groups, and the groups themselves, including in international relations as both juridical-

political practice and academic discipline (Vitalis, 2016; Moolakkattu, 2009; Quijano, 2000). In other words, what we know about the world is ordered through a range of concepts. In hiding and revealing aspects of reality, these also serve to circumscribe what we can imagine and convey a sense of inevitability to the current political, legal, social and economic organisation of the world.

To problematise this common sense perspective, the role of critical theory in international relations – or global studies - as theorised by Robert Cox, is to show how all theories have a perspective, which derives from "*a position in time and space, specifically social and political time and space*" such that the "*world is seen from a standpoint definable in terms of nation or social class, of dominance or subordination, of rising or declining power, of a sense of immobility or of present crisis, of past experience, and of hopes and expectations for the future*" (Cox, 1981:128).

The aim then becomes how to operationalise this critical thinking about concepts, institutions and power in the classroom, thus giving students the tools to themselves be critical researchers, who can both distance themselves from their experience, as well as draw on this experience, in ways similarly to ethnographic and feminist methods (Geertz, 1974; Sandra Harding, 1992) to discover how nearness and distance can reveal and hide certain aspects of objects and concepts (and concepts are of course also objects to the degree that human beings and groups mark different concepts and institutions with physical markers, barriers etc). This makes students better researchers, policymakers and citizens, as it will help them engage with people from different backgrounds and seek solutions to problems that may seem intractable from a point of view that

takes identities and institutions for granted.

To introduce this aspect of concepts and their critical exploration, it is crucial to start out by giving an easily approachable example to students, which can be supported by images. A good example is the common trope of the person who does not see the wood for the trees. After giving this example ask students what it means, to allow them to arrive at the conclusion by themselves. If students are not able to come to a completely clear definition, explain to them that both the concept of tree, and the concept of wood, depend on the perspective of the person who is looking, while both concepts similarly rely on organising an almost endless number of individual trees and woods according to certain characteristics. Similarly, but on a more abstract level, the concepts of the nation, culture, drugs, and religion can also look very different depending on perspective, as we will come back to.

### **What is a drug trafficker? Google Images as a Window into the power of concepts**

In this section I will outline how to operationalise my approach to teaching concepts in a way that allows for students to themselves become critical ethnographers, while also drawing on their own experience, in order to critically approach the constructed nature of concepts.

This method is multimodal, including visual, textual, and tactile information. As such it teaches a range of abstract concepts in a context that is meaningful rather than abstracted (Massaro, 2012).

This meaningful context which includes tools, objects and knowledge of students' everyday lives also facilitates inclusion of marginalised students, as shown by Paulo Freire (Freire, 1970, 2000) and students with different learning difficulties. Just as importantly, it is also a way of allowing students more generally to think for themselves in a way that is interactive, and which they can replicate in their future professional and personal lives.

Having provided a theoretical pedagogical context, I will start by outlining the main exercise, which is fairly simple. It consists of asking students to do a Google Images search for a concept, and for the purpose of this article we will use the concept of "drug trafficker". The results, should then be subjected to critical scrutiny, particularly taking into consideration some of the concepts that structure global power relations, such as gender and race.

Figure 1 is an example of the result from a search using Google Images to search for the Brazilian term for drug trafficker (*traficante*).

In addition to using the Brazilian term, in this search I have used developer tools to geographically locate the search in Brazil to make sure results correspond to those that would appear locally in Brazil, whose Afro-descendant populations are among the main victims of the global war on drugs. Another way of locating a search geographically beyond the classroom is to invest in a Virtual Private Network (VPN), which allows the user to change location in addition to protecting privacy.

In Figure 2 I have done the same exercise, but with the British terminology and location.

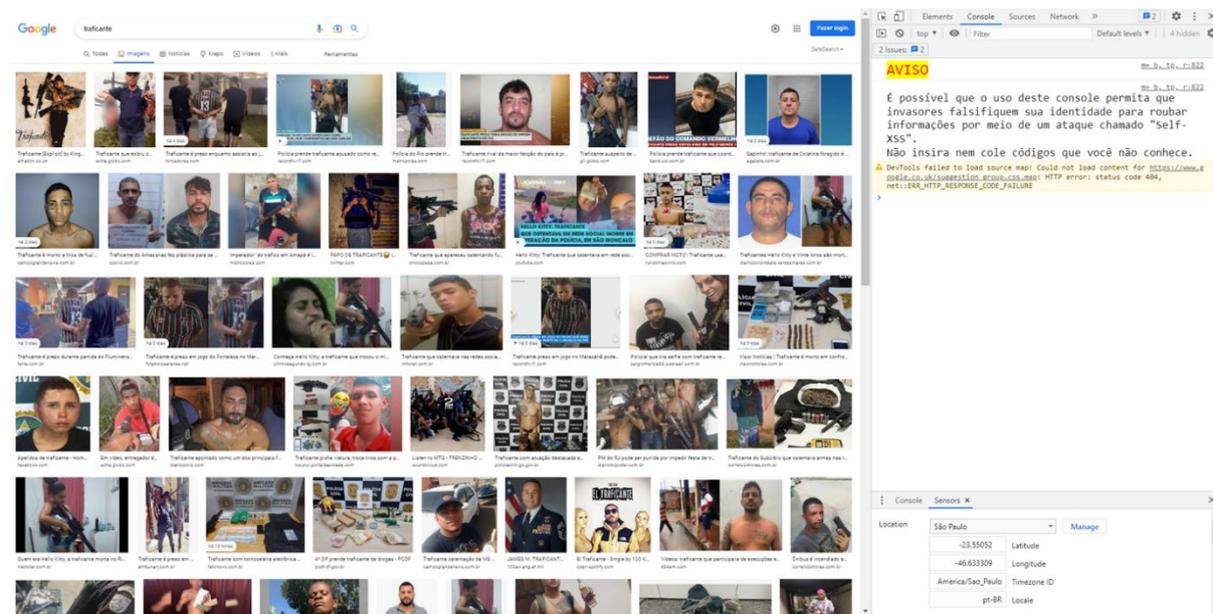


Figure 1: Google Image results for “traficante”

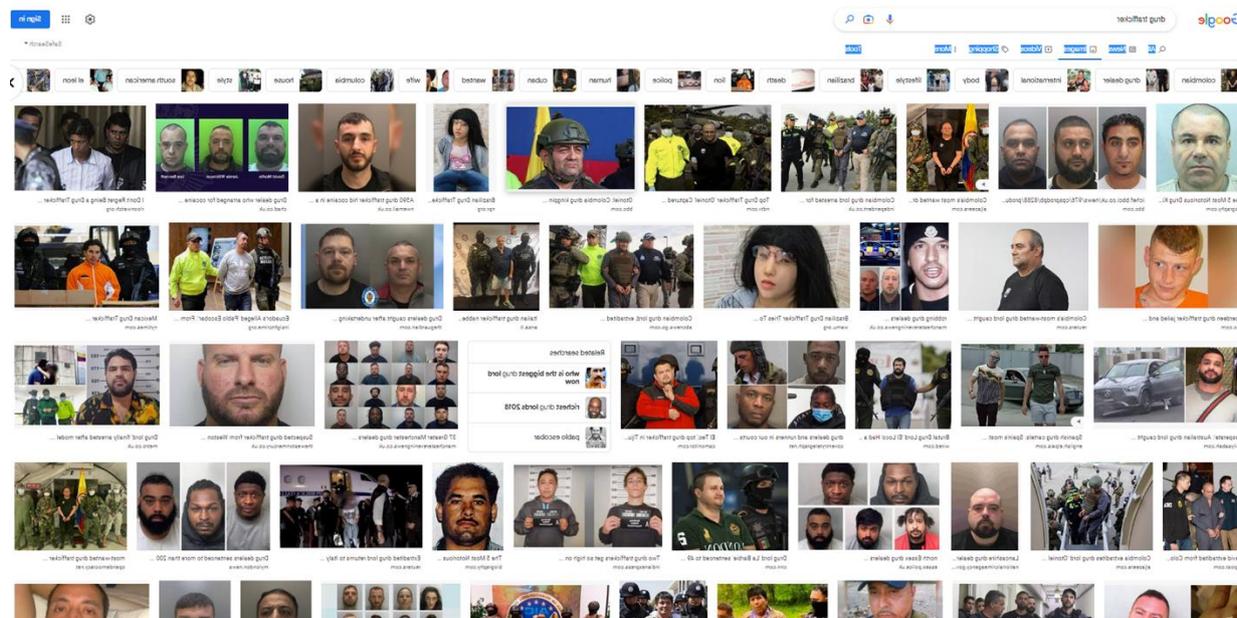


Figure 2: Google Image results for “drug trafficker”

Both figures show gendered and racialised Black, Latino and male “bodies”, thus revealing something about the concept of “drug trafficker” and the bodies who are singled out for repression in the war on drugs.

What is important to stress to students is that the results are not “natural”, or universal, but reflect biases, power relations and hierarchies that have

important consequences for practice, including policing.

In other words, these results both reflect and reinforce stereotypes due to the way the algorithm functions. This is not limited to the specific concept of drug trafficker, and journalists and researchers have shown, inter alia, how a search from women from specific non-western nationalities reveals much “racier” and more objectifying results

than those of women from Western nations (Schuinski, 2021), and how the term “three black teenagers” leads to mug shots (Guarino, 2016) and “Latinas” lead to porn- and dating-sites (Cortez, 2012).

While these biases in the algorithm are usually (rightly) criticised as extremely detrimental, their existence reflects search patterns of people in the real world, and thus the deep-held biases of large masses of people. Because the media and police are part of this world, these results also reflect the practice of racialised policing in the war in drugs, and how the media and police use race to identify “drug trafficker” from the moment of arrest to the news articles of the crime sections of Brazilian news-sites (Rocha, 2016).

As such, these results can be drawn on in teaching about how biases affect the everyday lives of marginalised populations, and how certain “neutral” legal, social and political concepts may be influenced by such biases. In other words, from the concept of drug trafficker to the images that students see on their screens, there is a complex process of criminalisation, racism, and search for an enemy.

This consists of the “primary criminalisation” which consists of legally defining a practice as a juridical category and concept never completely corresponds to the “secondary criminalisation”, which is the process of applying this concept to individuals in the form of legal and illegal punishments by the criminal justice system (Zaffaroni, 2013). This is carried out in particular by the police, but notably also the courts that sanction this state-violence, including in the form of the extrajudicial executions that are a common occurrence in the war on drugs, particularly as it is implemented in Brazil (Zaccone, 2015).

This secondary criminalisation is then structured around the concepts that shape how the criminal justice system and the media see the world and categorise individuals, according to their “dangerousness” or perceived propensity to engage in the legally defined conduct of selling certain illegal substances, namely “drugs”, [1] particularly due to their race and gender.

Thus, a particularly fruitful example of secondary application of primary criminalisation is exactly the war on drugs and the concept of drug-related crime, as this form of crime has historically been one of the preferred ways of controlling black and brown populations in the US and Brazil, both countries with large populations of racialised marginalised populations, including Black, Mexican and Chinese people, who are and have been associated with crack, marihuana and – in the latter case - opium (Saad, 2019).

In the case of Brazil specifically, Saad (2019) has shown how the post-abolition period after 1888 saw the introduction of the criminalisation of “black smoke”, namely marihuana, for the purpose of controlling Afro-Brazilians, even if this was not explicitly stated in the legislation but rather left to the discretion of police. This period also saw the criminalisation of other practices associated with black people, such as samba and capoeira, or simply the practice of being in the street without an official errand. Another example that can be drawn on is that of the US, where both the criminalisation of marihuana (against Mexicans and hippies) and later that of crack cocaine (against Afro-Americans) were politically motivated to target specific populations (Lopez, 2016).

In other words, one of the main lessons that this exercise seeks to make students understand is how the war on drugs is not a war on chemical substances

(drugs), but a war on people, and specific categories of people. Further indication of this, is the fact that there is no relation between the dangerousness of a drug, or other criminalised practices, such as samba, capoeira and Favela funk, and their prohibitions (Silva, 2016). In other words, Afro-Brazilian music genres and martial arts have been criminalised due the kind of people that engage in these activities (Afro-Brazilians), as a way of controlling these people whose racialised bodies were and are associated with danger and risk by state security apparatuses (Saad, 2019:21).

To further stress this I have brought in a percussion instrument that is typically used in Samba – a pandeiro - to use as a prop when explaining to students how this genre used to be criminalised in Brazil. Students then pass this around the class, touching and drumming on it, thus creating an interactive and tactile learning situation. Alternatively, the teacher can ask if any students practice capoeira or play music themselves and allow students to answer.

This means that the war on drugs has real work consequences, both in the lives of the victims, but also crucially for the functioning of an important sector of the global economy. This can be stressed to students, by doing a Google Image search for the word “banker” and asking students if the results look similar to that of “drug trafficker”, or, if not, what differences they can identify. The differences between results will likely be evident in terms of race, nationality, ethnicity and dress, and they provide evidence of how social status and formal wage labour work to determine who is seen by the police and the justice system as a “drug trafficker” (Zaccone, 2007).

Thus, the racialised form of the war on drugs, structures the economy of the drug market and the global financial

markets, through selective mechanism of secondary criminalisation, whereby the real number of drug related crimes is not reflected in the numbers that are published under “productivity” of the police and justice system, i.e. apprehensions (and deaths) of suspected criminals, their conviction and their time spent in prison. Instead, the criminal justice system, as a bureaucratic system in need of meeting its numbers, selects who to criminalise according to social, racial and gendered categories, as well as the differences in how the rich mainly occupy private space, whereas the poor spend much more time in public space, and do not have the means to defend themselves legally or otherwise from (police) violence, nor the means to safely store large amounts of cash (Christie, 2016).

What follows from this selection process, in addition to the extreme violence inflicted on racialised individuals, families and communities, is that the criminalisation of a specific link in a chain of value creation has the effect of weakening that link, thus decreasing the amount of value that can be concentrated there and increasing the value of other parts of this chain (Zaffaroni, 2013; Zaccone, 2007). In the classroom I have drawn on this dynamic to lead to a discussion of how the main revenue from the drug trade is concentrated in the financial system, with the HSBC, as one potential case, which is particularly notable due to the extraordinary proximity between HSBC and Mexican cartels.[2]

To visualise this, I ask students to do a Google Image search for “banker” and discuss the differences from Figure 1 and Figure 2, which will usually lead to a vivid discussion.

However, the use of such examples should not distract from the more general fact of the close association between capital and organised crime, in

particular drug trafficking (Arbex Jr, 1996).

To sum up on this exercise, it is important to stress, that the teacher should reflect on their own position, and draw on experiences in students from underprivileged backgrounds who may identify with a lot of the problems that are identified in the above exercise, and potentially be able to contribute from such experiences.

This brings us to the next exercise, which draws on the uses of both nearness and distance in the teaching situation, again using Google Images, in addition to Google Earth, and other media.

### **Distance and nearness**

In the following I expand on the above method to teaching concepts in a critical way, while giving additional focus to the value of nearness and distance, as these have contributed to social science methods (Geertz, 1974; Harding, 1992), as well as expanding on the concepts that the methods can be applied to. This will further allow for an interactive teaching situation wherein students become the researchers discovering the ways that the concepts that structure politics, law and international relations are performed and embedded in unequal relations of power rather than being neutral, natural, or necessary.

Thus, the main exercise aims to problematise the nation as a concept and teaching students how a certain (ironic) distance to that concept can help us to be better citizens (Connolly, 2002). Specifically, for our purpose, taking a critical approach to the concept of the nation can help us see how it limits the solution that we can envision to problems that cross borders, such as pollution and global warming, and environmental collapse.

To start out, it will be useful to give a presentation of the main conclusions of Benedict Anderson, in his seminal *Imagined Communities*, which can inform a quick discussion concerning what it means to belong to a nation, and what makes up communities, where any two people are unlikely to ever meet face to face (Anderson, 2006).

Following this, invite students to Google the name of a country in Google Images (for this example we will use Brazil, but this may be their own country and/or their country of study).

Here, results such as landmarks, cultural and social practices, the flag etc will likely come up, as in Figure 3.

Thus, in Figure 3, we see some of the landmarks (most from Rio de Janeiro), practices and people that are often associated with Brazil, such as the flag, the map, Christ the Redeemer, the Sugar Loaf Mountain, soccer, carnival, and sensual women (including the popular singer, Anitta), the latter having been deliberately promoted, since the military dictatorship, and before, as a Brazilian "attraction" (Santos, Francisco, and Guerra 2021). In other words, "Brazil" of the popular imaginary, is composed of a set of sites, practices, bodies, and symbols.

Two conclusions arise from this discovery. First, that "Brazil" is a constructed concept, and many of those who belong to Brazil via the formal category of citizenship may not share in all the practices and attributes associated with this entity. For example, the Amazon, only appears once (as a suggested search term), while the indigenous populations inhabiting all of Brazil and currently threatened with genocide by the Bolsonaro administration, are not represented at all.

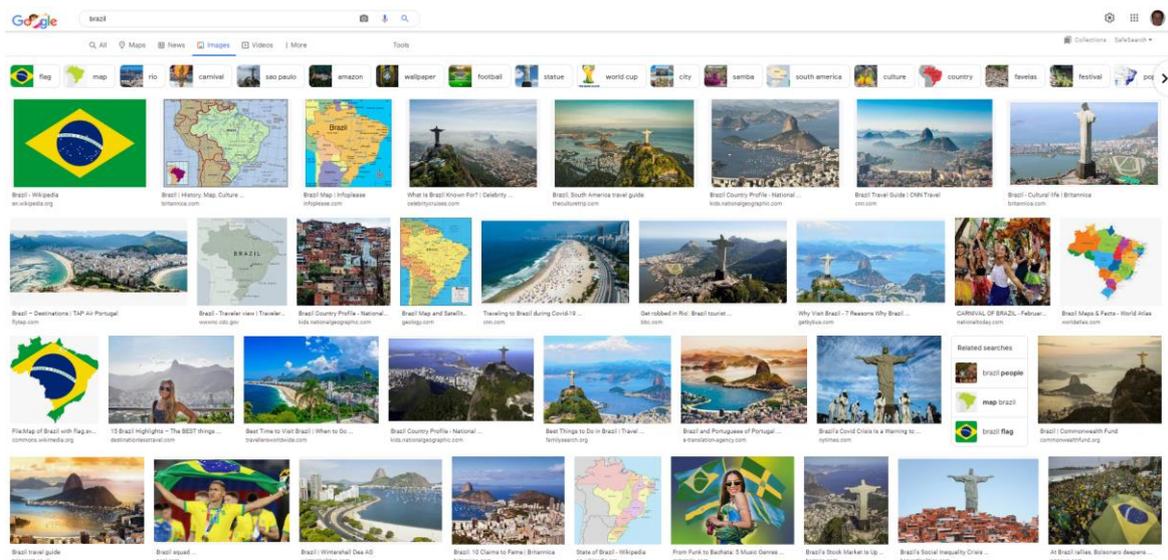


Figure 3: Google Image results for “Brazil”; sites, practices, people, and symbols

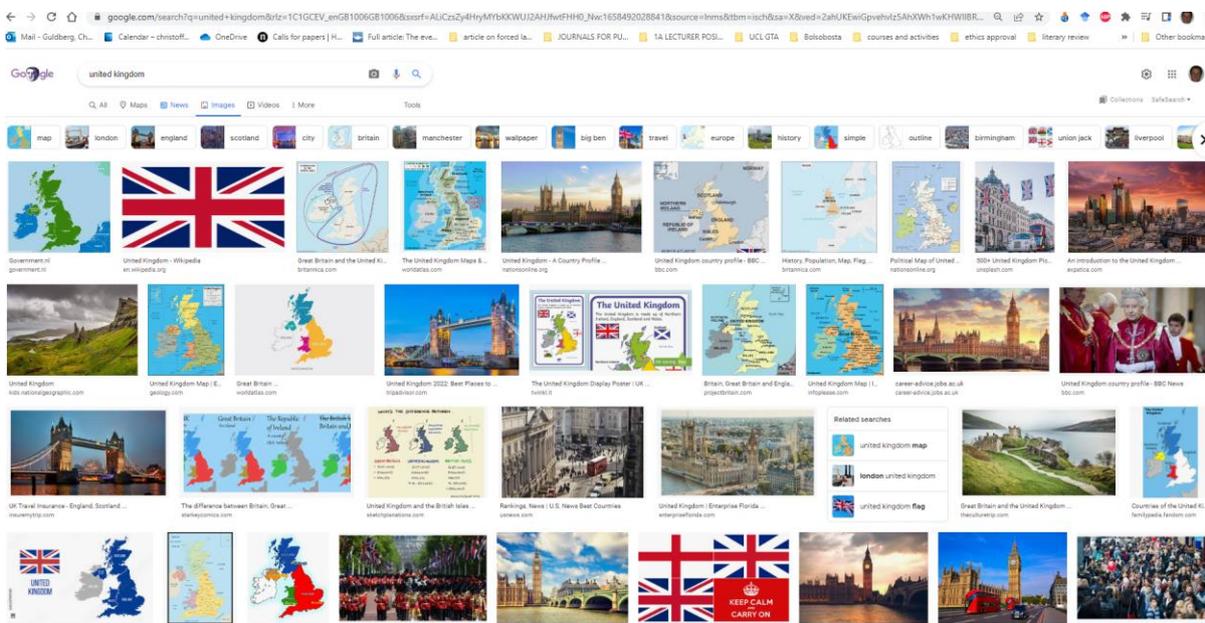


Figure 4: Google Image results for “The United Kingdom”; sites, practices, people, and symbols

Secondly, this imagined “Brazil” may not correspond to the legal concept of Brazil as a member of an international community of nations that can enter into relations and conflict.

For comparison, ask students to Google a European country and /or the country that they are from themselves. As an example, Figure 4 is the image search for the United Kingdom.

Here we see certain similarities, but also differences, particularly the sexualised women seem to be absent, but maps are prevalent, as are landmarks, mostly from London. Notably, differently from Brazil, the results do include several depictions of the UK as a *political* entity, with not just a culture and landmarks, but also *political* leadership, and thus the capacity to enter into relations with other states and nations.

## Guldberg, Using Google Images, Maps and Earth to teach critical thinking

In the case of “Brazil” while most of the results are from Rio de Janeiro, as a symbol of Brazil and a popular tourist destination, (but crucially not the political or economic capital), we also see several iterations of the map of the country of Brazil as a *territorial* whole (but, again, no representation of formal domestic political power). In other words, here we see, in the virtual space of Google Images, those limits to political community that both deny access to the international for the post-colonial subject as well as being the object of resistance and re-drawing (Jabri, 2012).

At the same time as denying political subjectivity to Brazil, these images also represent the country, as do maps of other nations, as a reified, iconic, and easily recognisable piece in a jigsaw puzzle of the world, which can be taken out of this world map, and is spatially and territorially distinct, marked by red lines following a winding path on a two-dimensional screen (Anderson, 2006). This reification further serves the problems of drawing the limits of the political, as it excludes alternative groupings, such as indigenous and *Quilombo* (Maroon) communities.

Developing on this problem, the two contrasting image results, and particularly the maps, can serve to inform a discussion about such representations hide and reveal. Thus, while the map of the territorial nation clearly reveals a reality, this is not the whole picture, and may hide and reveal, both cultural, natural, and political aspects of reality, including biomes, ethnic groupings and geographic sites that cross such boundaries, or exist witing boundaries of the nation-state. Thus, the borders that are stressed in the map are sometimes, but now always representative of natural and man-made barriers on the ground, such as rivers, mountains, guard houses, while at the same time natural and man-made circulations cross the lines outlining borders on the map, including pollution, trade in licit and illicit substances and commodities, and the greenhouse gasses that cause global warming.

This can be further stressed with the use of Google Earth in the following exercise where students open Google Earth in the browser and search for a country. This will reveal the following page, depending on the country chosen.



Figure 5: Google Earth in “Exploration Mode”



Figure 6: Google Earth in “Clean Mode”

Again, here we see Brazil as outlined territorially with red lines superimposed onto a two-dimensional surface, and a pin in the middle saying “Brazil”.

More than Google Images, Google Earth, allows for a range of options wherein students can become the critical researchers discovering the limits of this representation of “Brazil”. As an example, students can zoom in on the pin saying “Brazil”, and find themselves looking at a dense forest, with the nearest apparent habitation being a temporarily closed school.

On another level, students can choose what parts of the political and natural geography they wish to view, including choosing a “clean” version, showing only the natural geography, as per Figure 6.

While exploring these options, students should be encouraged to reflect verbally or textually on what they see, and how the images differ between the options represented in figures 5 and 6. Notably, in figure 6 is the Amazon rainforest and its main river. Interestingly, one student, when asked, suggested this was a road, and indeed the river and its tributaries are used for transportation in the region.

Crucially, this clearly shows how the extents of these natural sites and biomes, do not coincide with the red lines in figure 5, which can be turned on and off for didactic/dramatic effect. This allows for a critical questioning of the constructed nature of such boundaries, and what they entail for collective action upon the world by human beings. Particularly, like the river that extends beyond the human-made boundaries of international relations, the biome that is the Amazon, and the effects that it has on the global climate, do not respect human-made boundaries of international relations. Specifically, this means that the role of the rainforest in regulating global climate, has consequences for rainfall regionally and globally, while the mercury that is released into the river by miners, is transported downstream, and lodged in the bodies of human beings and animals. This experience of destruction can only partly be represented in a 2D map, which should lead to the important question of nearness and distance, as this relates to our understanding of concepts.



Figure 7: Credit NASA (<https://www.nasa.gov/image-feature/apollo-8-earthrise>)

As an example, Figure 7 can be shown to students. This image has been credited with the global environmental movement (Ian Sample, 2018), and a look at it reveals, how this is in part due to the perspective of distance, which makes the globe stand out as a *whole* against the dark emptiness of space.

In other words, distance gives a certain perspective, which brings in aspects of reality that we may be blinded to by our positionalities, as citizens of certain countries, cities, and communities.

On the other hand, nearness is also crucial for the purpose of adopting a critical approach to concepts, and power relations (Geertz, 1974; Sandra Harding, 1992)

To illustrate this in the classroom I show Figure 8 and ask students what they see in it.

The aim of this question is to have students put themselves in the place of this group of people looking out at the camera. Thus, the first answer will likely be that they are looking at a cameraman. To prompt further reflection, ask students who may be holding the camera, and what the relation is between that person and the people in the photo?

The answer is that they are being filmed by the FUNAI agency of the Brazilian state, as of writing in 2022 this agency has been virtually extinct, and we do not know if these people are alive, but the current right wing, military-backed Bolsonaro government, and its predecessor in the Temer government are complicit in deforestation, illegal mining, and the genocide of the indigenous population (Survival International, 2017).



Uncontacted Indians in the Brazilian Amazon, filmed from the air in 2010. © G.Miranda/FUNAI/Survival

Figure 8: Uncontacted Indigenous People

In other words, the person holding the camera represents a nation-state, and specifically the agency charged with the protection of indigenous peoples. Of course, these groups of people were not asked if they wanted to be part of the Brazilian nation-state but were included based on the two-dimensional territorial conceptions of the nation, and *ex*-cluded due to their racialised bodies, and their perceived temporal backwardness.

Part of the difference in perspective is thus about positions in space and in time, and this can be further stressed by showing a video [3] of two men from an uncontacted group (Watts, 2019). The video may prompt a discussion of how positionality affects an understanding of space. Thus, by contrasting the video to an aerial view of Google Earth, shows how one, appears to show a flat surface. This is however not the case, as we get nearer to the forests, where it becomes clear that the rainforest is alive with plants animals, people and a roaring sound of insects, birds, monkeys etc. as

it can be heard in the video. This is a very different conception of the land, than the aerial view that is exemplified in figures 4 and 5 as well as the two-dimensional maps that symbolise the territorial extension of nation-states on the globe and within an international system of Westphalian sovereignty as protected by militaries around the world, including, particularly in the case of Brazil, against the “threats” from racialised others, such as the indigenous groups depicted above (Leirner, 2020). The video may prompt a discussion of how positionality affects an understanding of space. Thus, by contrasting the video to an aerial view of Google Earth, shows how one, appears to show a flat surface. This is however not the case, as we get nearer to the forests, where it becomes clear that the rainforest is alive with plants animals, people and a roaring sound of insects, birds, monkeys etc. as it can be heard in the video. This is a very different conception of the land, than the aerial

view that is exemplified in figures 4 and 5 as well as the two-dimensional maps that symbolise the territorial extension of nation-states on the globe and within an international system of Westphalian sovereignty as protected by militaries around the world, including, particularly in the case of Brazil, against the “threats” from racialised others, such as the indigenous groups depicted above (Idem).

Instead, the video and the above photo invoke another conception of sovereignty, namely as that of responsibility, and autonomy as capacity (Vigevani & Cepaluni, 2007). Indeed, the video was shot by a neighbouring group to the uncontacted Awá Tribe, the Guajajara, who like other groups defy their racialised exclusion as “backwards” by using digital technologies to protect their territories (Watts, 2015).

### Conclusion

In this article I have outlined an innovative approach to Technology-Enhanced Active Learning (TEAL) which draws on Google Images and Google Earth to allow students to critically explore the concepts that shape the international as a field of both theory and practice.

As examples I have focused on the concepts of drug trafficker and nation-state and outlined an exercise in which students Google the word drug trafficker or the name of a specific nation-state.

The Google Image results from these search terms then serve to frame a discussion and visualise how seemingly neutral legal and political concepts are shaped by and shape practices of violence against racialised other, international inequalities, and the fight to stop climate collapse.

In addition to visualising the content of a lecture, this exercise also allows for the teacher to draw on the expertise of

students, while guiding the discussion with several different kinds of input from the literature on critical criminality, nationalism, and global warming.

The fact that students can themselves use the Google Image Search tool to add in search terms, allows for an interactive element to this exercise, and teacher and students can also expand the range of search terms, *inter alia*, to such terms and concepts as “international development”, which will show an unequal and one-way understanding of development whereby racialised others in the global South receive development from enlightened Westerners at European and North-American universities.

The aspect of interactivity is further developed in the second exercise where students explore Google Earth’s different modalities to visualise and problematise the boundaries of nation-states, and the ways in which they limit the solutions that we can envision for collective action against pollution, climate change and regional and global environmental collapse.

Ideally, these exercises should inspire students to be critical and engaged global citizens, including by simultaneously drawing on and critically engage their own positions and perspectives within the global system that they can explore through the tools of the Google Corporation.

In this sense it is an exercise in decolonising education, which goes beyond the stage of decolonising the curriculum in order to focus on a decolonisation of the teaching situation wherein students can themselves explore how knowledge is dynamic and contingent, particularly on a system of coloniality and epistemicide (Fataar, 2018; de Sousa Santos, 2015)

Students (and some teachers) being digital natives also means that the ideas and exercises in this article can be

developed with the input of students and teachers. Things that could be changed include, the examples used, the sequence of questions, discussions and expositions by the teacher.

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### References

[1] I put this term in inverted commas here, as several (recreative) drugs are not criminalised, and in much jargon, legal and otherwise, may not be referred to as such, e.g., coffee and alcohol.

[2] Another case could be the Brazilian politicians, Aécio Neves (former right-wing presidential candidate) and his associate, Zezé Perrella, right wing regional politician, closely associated (but never convicted) with a famous case of the trafficking of 450 kg base cocaine.

[3] <https://www.theguardian.com/environment/2019/jul/22/uncontacted-tribe-video-amazon-rainforest-awa-people>

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