

# The Vaping Dilemma - Rationale and References

[HPSC0155 - Practice-based project](#)

## **Dissertation, Science Communication Master's Degree Joe Woof 2023**

This 5000 word document is an accompaniment to my practical output and describes my focus, methodology and creative choices and their anchoring in the scholarship of science and technology studies and science communication.

### **Background to my practical output**

#### ***Focus, audience, aspiration***

The practical part of my dissertation is a 12 minute film - The Vaping Dilemma - focusing attention on the wider social and economic context of youth vaping.

It aims primarily to engage young people (18-25) in understanding the broader issues about vaping they may not be aware of, and framing it in ways that give them a new perspective and inspire them to perhaps think twice about their own vaping habits.

The research for the film also shed light on how this social context was framing the issues in the eyes of MP's, the NHS, bodies such as Action on Smoking and Health and health charities. The film will also be shared with this audience to draw their attention to the limited scope of their current view of vaping and the growth of recreational vaping in young people.

#### ***Motivation for choosing this topic and audience***

In the final year of my Undergraduate degree at the University of Newcastle, I started vaping on a night out, having never smoked before, and soon realised I had developed an addiction to nicotine. But I was not alone in this. Vaping had become an integral part of the University social scene, those not vaping were the ones who stood out as unusual.

But I didn't see anything in the media, or social media about this epidemic of vaping among and want to use the vehicle of my dissertation to increase awareness of the problem to my peers.

### ***About Vaping***

#### ***The Vape Market***

The modern E-cigarette or vape was created in 2003 in China by a Chinese Pharmacist Hon Lik designed as a replacement for smoking without the deadly health effects of the tar in cigarettes. (PHE, 2014). These products were refillable devices, with an atomizer and cartridge containing, usually, a flavoured nicotine liquid. A rechargeable lithium ion battery was operated by use which heats the liquid releasing a vapour which the user inhales.

Its design sought to replicate the chemical and physical sensations of smoking to make the transition to less harmful e-cigarettes as familiar and easy as possible. The design of refillable vapes evolved and was grouped to 3 categories - (1) Ciglike, that resembled cigarettes in shape and size, (2) eGos which were larger and had a removable refillable tank for E-liquid and (3) Mods which are larger and heavily customisable by the individual to create vapes personalised to their own preferences. (Zhu, et al, 2014). These first generations of vapes were introduced into the UK in 2005 (PHE, 2014).

A step change was made in the design of vapes by Chinese company ElfBar and launched in the US 2018 (Vapesuperstore.com, 2023) which allowed for single-use vapes where both the mechanics of combustion and the flavoured nicotine was contained in one single small product. These were designed to be disposable with a finite number of 'puffs'. They were launched into the UK in 2020 with a legal limitation of 2mg of nicotine liquid equating to 600 puffs or 20 cigarettes (MHRA, 2016)

The sector grew rapidly and by 2022 the sales of vapes in the UK reached £1.325 in total with the vaping sector supporting an 'aggregate footprint' of £2.8bn including supply chain and jobs (UKVIA, 2022). The UK vape market has more than 2,900 specialist stores generating more than £1.2bn annually, as well as availability in all corner shops, supermarkets, bars, clubs, even hairdressers. (Marsh Commercial 2022). I was unable to find statistics on online sales of vapes, but online shops appear not to require the same level of licensing as retail outlets and correspondingly online sales outlets appear to be proliferating, with significant price reductions over retail sales and limited effectiveness of age verification.

The disposables Elfbar and its sub-brand Lost Mary are now UK brand leaders, overtaking others and tobacco brands such as Vuse by British American Tobacco in just two years. It is Europe's largest market and the second largest in the world, behind the US (Statistica, 2023)

## **Vape usage**

The latest statistics from the anti-smoking charity ASH showed that by February 2023 4.7 million (9.1%) of adults report using vapes, of these 2.7 million (56%) are ex-smokers, 1.7 million (37%) are current smokers, 320,000 are never smokers (ASH, 2023)

Their research among young people in 2023 found that 20.5% of children had tried vaping, up from 13.8% in 2020. Since 2021 the proportion of current vaping has been greater than that of current smoking (7.6% compared to 3.6% in 2023) (ASH, 2023 pp 1)

Until 5th September 2023 young adults 18-25 were not identifiable in any official statistics by ASH or the government, which clustered them with all adults(ONS, 2023). It was therefore not possible to pinpoint the uptake of vaping among the young adults I was focusing on for my dissertation. However the Office of National Statistics use the category 16-24 year olds in their clustering, making it hard to distinguish 'children' which the government regulation and policies are focused on from young adults who fall outside the policy remit.

## **Marketing of vapes**

The narrative of vaping as a smoking cessation product for adult smokers has become increasingly detached from the reality of vaping usage in recent years. I propose this is a direct result of company product and marketing strategies. For instance, a 2014 study of 466 vape brands found that older E-cigarette brands were significantly more likely to position their E-cigs as an effective smoking alternatives, and claim they were healthier than smoking compared to newer brands (Zhu, et al, 2014). Contrastingly, newer brands were more likely to offer more flavours and make less comparisons to smoking in their promotions, which were increasingly focused on vapes as lifestyle products. (Zhu, et al, 2014).

Variable	Yes	
	n	%
<b>Presence of consumer protection messages</b>	102	78
Ad states that product contains nicotine	99	76
Ad contains an age restriction (e.g. '18+')	92	71
Ad states that nicotine is addictive	47	36
Ad states explicitly that e-cigs are only for adult smokers	43	33
Ad states that the product is not a cessation product	27	21
Ad states that product should not be used by non-smokers	0	0
Ad contains any other consumer protection message	15	12

Figure 1: Cancer research UK 2021, Presence of consumer protection messaging

More recently, a 2021 study by Cancer Research UK analysed adverts from vaping brands which showed a significant departure from what we would perceive as the characteristics of vaping ads if the product were truly treated as an 18+ smoking alternative.

Alongside this shown in figure 1, analysis into the framing of vaping in these adverts showed that lifestyle was the most popular psycho-social concept (47%) and vaping community/family the most popular norm (25%). These 2 diverging characteristics of vaping adverts signify the trend of marketing of these products which is reflected in changes in usage from older smokers to young people.

## **Regulation and government policy**

There were a variety of regulatory regimes across the world for vapes, with 40 countries having banned vapes (Eccles, 2021) including most recently Australia. The UK is considering restricting vapes marketed to children and promoting vapes to help smokers quit with a 'swap to stop' programme giving free vapes to smokers through the NHS (Gov.uk, 2023). There will be no help to quit vaping and nicotine altogether. Looking for 'How to quit vaping' on the NHS, the only resources they have is about encouraging people to take up vapes to help them stop smoking.

## Search results for how to quit vaping

how to quit vaping

[Stop smoking treatments](#)  
Find out about the medicines that can help if you want to **stop** smoking, including nicotine replacement therapy (NRT).

[Breastfeeding and smoking](#)  
Advice on the risks of smoking and **e-cigarettes** while you are breastfeeding and safe ways to **quit**, including nicotine replacement therapy (NRT).

[Using e-cigarettes to stop smoking](#)  
Find out about electronic cigarettes (**e-cigarettes**), including how they work and how **vaping** may help you **quit** smoking.

[Stop smoking in pregnancy](#)  
Find out why you should **stop** smoking in pregnancy, and how smoking can harm your unborn baby. Plus where to go for support to help you **quit**.

The sense of certainty about the importance of vaping for smoking cessation is encapsulated in this quote from the Royal College of Physicians (2019):

*“if [a risk averse and precautionary] approach also makes e-cigarettes less easily accessible, less palatable or acceptable, more expensive, less consumer friendly or pharmacologically less effective, or inhibits innovation and development of new and improved products, then it causes harm by perpetuating smoking.”*

However, this certainty is not shared by many other health practitioners and though many studies report that vaping is a helpful smoking cessation product (Klein et al, 2021) there is not full consensus on (a) what type of vape, (b) the weighting of effectiveness of the accompanying support also used in many studies against the product alone (NHS 2022).

For example the first global meta study by Prof Emily Banks et al (2023) indicates that ‘cold turkey’ quitting with support may be the most effective smoking cessation strategy with many health professionals and addiction specialists also questioning the wisdom of simply swapping one nicotine habit for another. Nicotine is why people smoke and why they don’t stop until it kills them.

### **Health Effects of vapes**

The ubiquitous statistic used in relation to the health effects of vaping is that vapes are 95% safer than smoking (Nutt et al, 2014). The source of the 95% figure traces back to a 2014 study where 12 experts rated the harms of different nicotine products on 14 criteria (only two of which were about the health effects on the user, others including crime and economic cost to the nation). These were compiled to produce a weighted single score to determine the harm of the product. Cigarettes received 99.6 and vapes received 4, leading the study authors to conclude that vapes were ‘95% less harmful’ than cigarettes.. A 2022 update by Public Health England (PHE, 2022) of this study also concluded that the ‘*at least 95% less harmful estimate*’ (*that is, smoking is at least 20 times more harmful to users than vaping*) *remains broadly accurate at least over short- and medium-term periods, but it might now be*

*more appropriate and unifying to summarise our findings using our other firm statement: that vaping poses only a small fraction of the risks of smoking”*

There is widespread incorrect use of the data given it actually states it is 95% ‘less harmful’, not ‘safer’ which is widely used by the vaping industry in its marketing and has been used as late as July 2023 by the Health Secretary. (Neill O'Brien, Westminster hall ‘Vaping among under 18s July 12 , 2023).

Furthermore, the studies only consider current knowledge of vaping safety, without considering prediction based on future health effects, which the meta study (Banks et al, 2022) indicates are of significant concern.

Furthermore, no consideration or weight appears to be given to 3 published admissions by the initial study’s experts that:

- *“A limitation of this study is the lack of hard evidence for the harms of most products on most of the criteria”*
- *“Our understanding of the potential hazards associated with using electronic nicotine delivery systems (ENDS, e.g. E-cigarettes) is at a very early stage”*
- *“These devices should not be introduced in an unregulated way until potential associated harms are adequately evaluated”*

However there is significant concern by the government and ASH that the public show greater concern about vaping than is evidenced by this statistic, which is leading them not to wish to use vapes for smoking cessation, leading to more deaths than necessary from smoking. In 2021, only 34% of adult smokers accurately believed that vaping was less harmful than smoking (Gov.uk, 2022). However, in a study exploring the perceptions of vaping in England, out of those that took the view that vapes were more harmful than smoking, the most common reason given was *“perceived lack of trustworthy research”* (Arshad et al, 2023).

However other bodies that have examined the health effects of vaping have come to different, less certain, conclusions. Professor Emily Banks and a group of independent Australian researchers carried out a meta study on 400 peer reviewed papers from around the world on the health effects of vaping Health Impacts of Electronic Cigarettes. Their conclusions were that there was significant short term harms, especially for non-smokers, but for major concerns like cancer, cardiovascular and some respiratory risks, there was insufficient or no available evidence to make claims in either direction. Consistent with this, the WHO (2022) stated:

*“Evidence reveals that these products are harmful to health and are not safe. However, it is too early to provide a clear answer on the long-term impact of using them or being exposed to them”*

## ***Understanding of vaping in the context of science and technology studies***

The scholarship of Science and Technology studies is most often focused on science based innovation and emerging technologies - such as biotechnology, synthetic biology, nanotechnology, neurotechnology, robotics, AI, geoengineering or a focus on specific products - for example, GM foods, self-driving cars, neural implants. The uncertainties and futuristic social imaginaries are often based on science fiction or future based film entertainment (Jasanoff and Kim, 2015). Vapes by comparison are relatively mundane consumer products and whilst innovative, they have no high tech components and no futuristic social imaginaries in the minds of the general public or policy makers.

However, the literature, particularly the scholarship on Sociotechnical Imaginaries (Sheila Jasanoff, Sang-Hyun Kim 2015) gives an interesting perspective through which to analyse the recent developments in the vaping industry. A key observation of Jasanoff and others is that the design of the products of technologies is treated as separate from '*the social arrangements that inspire and sustain their production*', which in this context relates to two contrasting imaginaries of vaping. The dominant one being the view of vapes as a valuable smoking cessation tool created to reduce the death from smoking. The second is the imaginary of vapes as a product of a 'nicotine economy' (my framing) where the sector's expansion, especially since 2020, appears from my research to be more focused on adapting the product for maximum addiction, with the positioning of vapes as a lifestyle product for recreational use.

Imaginaries also explore how norms shape technology. The norm of the acceptance of the smoking of cigarettes, despite their death toll, is the defining factor in the introduction of vapes. Cigarettes have killed more than 100 million people since their introduction. Smoking is the biggest preventable disease in the world today and studies indicate that the global economic cost of smoking attributable diseases could be in the order of magnitude of 1.8% of global GDP annually. (WHO, 2023)

Consequently, the current sociotechnical imaginary of vaping is its role in creating 'a world without smoking deaths', where anything which can help avoid this huge number of unnecessary deaths is favourably considered, even if in its own right the solution is considered by many to have the potential health effects which may kill a large number of people.

What my research for this broadcast indicates is that the 'world without smoking deaths' vision has deflected attention (seemingly in the UK particularly) from the sole reason that these deaths occur - the addictiveness of nicotine. (Tar only kills people through years of repeated exposure, so without the neurological addictiveness of nicotine the compulsion to smoke would be negligible). This has allowed acceptance of a new product with a similar distinctive health profile in its early stages to be accepted and health effects to non-smokers to be seen as collateral damage.

This is not universal. Over 40 countries have banned vaping all together on mainly on precautionary health grounds and Australia has recently banned disposables after recognising their divergence from the original imaginary and which does not see vapes as primarily a valuable smoking cessation tool.

The anchoring effect of their marketing as a lifestyle product for recreational use is to position vapes as a consumer product, even a 'normal' addiction like perhaps alcohol. Alternative imaginaries may consider them technological artefacts or perhaps tools of addiction akin to other strongly addictive drugs.

### ***My film and vaping in the context of science communication theory and practice***

Vaping does not fit neatly into the Science Communication model of specialist new science being communicated by experts to a sceptical lay audience (Gregory and Lock, 2008) But one of the central issues of science communication; the 'deficit model' (assuming that a deficit of quality information is behind any negative or contrary opinions) appears to be very much present in the communication of experts, government and industry, about the issues of vaping to the general public and young people in particular. For example, the simplistic use of the 95% statistic and the concerns about misinformation about the health effects which will be rectified by better communication of the statistics. ([Harm perceptions Gov.uk 2022](#))

Much existing communications information for young people in the UK (though not the US or Australia where civil society groups appear to lead on risk communication not government) also appear to fall into this deficit model category. The only one I was able to find was on the ASH resources website [Vaping and E-Cigarettes The Facts from Smoke Free Sheffield](#) has a top down style and rather patronising tone.

Furthermore, at no point in the policy and regulation process have young people, the main users of vapes, been consulted in any way other than the generation of usage statistics.

Effective science communication recommends the use of stories which resonate, "A good science communicator connects the public with the world around them" (Nature 12 October 2021). This was the aim of my film.

I chose as the framework for my decision making for my film the work of Chip and Dan Heath In their 2014 book *Making Things Stick* they propose 5 principles which make ideas memorable and stick in the imagination of audiences. These are:

1. Simplicity
2. Unexpectedness
3. Concreteness
4. Credibility
5. Emotions
6. Story

I used these criteria as the basis for choosing storylines, interviewees, data and imagery. See below in my Methodology section how these were applied.

## ***Choice of film as a format***

Each of the three formats for the dissertation - written, podcast and broadcast - had validity as an appropriate medium for the issues of vaping.

I chose the broadcast format for 3 reasons:

1. This would be the preferred format for my primary audience of young adults 18-25.
2. Vapes themselves are colourful and visual and I felt the medium of film would lend itself well to communicating the issues.
3. The format would also lend itself to the creation of short clips, YouTube shorts and TikTok videos for follow-on communication and engagement.

## ***Choice of broadcast style***

I considered the impact and relevance of a number of broadcast styles to the subject matter and narrowed it down to three main style options:

- (a) *A factual news format - eg BBC News item*
- (b) *Investigative journalistic/expose documentary - such as Panorama or Horizon*
- (c) *Strategic Impact Documentary - such as Netflix' Social dilemma*

### ***Factual news item***

I initially envisioned the broadcast as a factual news item which would explain vaping, outline the issues and draw attention to the explosion of vaping in young people.

My research for the project led me to conclude that this format would not do justice to the complexity of the content, my social change aspirations, or be the most appealing to my target audience of young adults.

### ***Investigative journalistic/expose documentary***

My research for the content of the film rapidly turned into a more investigative approach and pointed to my broadcast being more like an expose documentary style. From the literature I drew on two quotes that position my intentions. Firstly Mark Lee Hunter, "exposing to the public matters that are concealed, either deliberately... or accidentally, behind a chaotic mass of facts and circumstances that obscure understanding" (Cancela et al, 2021).

Secondly, as a form of journalism that "contributes to the crafting of the moral order" (Ettema and Glasser, 1998).

This approach seemed to fulfil my aims in providing a compelling narrative to describe the situation of vaping in the UK. But it felt something was missing in the way it would appeal to young people and its ability to capture my own experience which I felt may enhance the communication of key messages.

### ***Strategic Impact Documentary and Performative Mode***

[Nash and Corner \(2016\)](#) observed that "*Emotion as much as knowledge needs to be fed into social subjectivity and social imaginary before becoming generators of collective action*". The past decade has seen the emergence of a new kind of documentary making that marries documentary storytelling and the principles of strategic communication.



Strategic Impact Documentary aims to achieve specific social change by using popular entertainment storytelling techniques and aligning documentary production with additional online and offline practices which are more engaging and two-way. A prominent example of this is the Netflix documentary on the harms of social media *The Social Dilemma*.

Of the six documentary styles, which I explored through reflection on the [Masterclass video series](#), (Poetic, Expository, Participatory, Observational, Reflective and Performative) the Performative Mode seemed to provide a useful style through which to explore the issues of vaping. Performative documentaries focus on the filmmakers' involvement with their subject, using their personal experience as the starting point for the communication.

I have chosen to make my output in the style of a Strategic Impact Documentary using the performative mode as the basis for the narrative arc. The name *The Vaping Dilemma* reflects similarities to *Social Dilemma* in terms of its use of the performative mode and content in the form of the corporate 'attention maximising techniques' and corporate impact on society themes. In this way I hope to appeal to young people through the use type of film making they will be familiar with and will appeal to them.

I am also working with responsible innovation consultancy SocietyInside to take forward the Strategic Impact methodology of multimedia communication following on from my Master's.

## *Methodology*

### ***Background research and scoping of potential interviewees***

I undertook a literature review on vaping and kept abreast of the fast moving nature of the issues through monitoring of broadcast, media and social media content and review of ASH daily newsletter on smoking and vaping.

In addition I undertook an initial scoping study among young people and experts to understand the issues from different perspectives.

From there I identified the core subject areas and appropriate individuals for personal interviews to illuminate the issues I wished to convey.

### **Scoping literature review included:**

- Academic publications
- Mainstream media (Guardian, Times, Economist, BBC, C4, Panorama)
- Social media (Tiktok and Instagram)
- Government publications - (Particularly parliament documents, Hansard, Parliament TV, MHRA, ONS,)
- NGO institutions - ASH (Action on Smoking and Health), Demos, Cancer Research, Asthma UK, Tobacco Tactics, Tobacco Interference Index)

<b>Scoping discussions</b>			
<b>Group</b>	<b>Format</b>	<b>Purpose</b>	<b>Learning</b>
<b>Young people May/June 2023</b>	18 - both individually and in groups	To understand young people's views on vapes & any regional variations York, Bath, Bristol, Exeter	Clear opinions and behaviours towards vaping and commonality across regions.
<b>Sense About Science Evidence Week-Question to Parliamentarians 3 July</b>	My question & responses by MPs & experts	To get feedback on my question of vaping from experts and in the field and MPs	Openness to further engagement by MPs and interest in issues
<b>Charles Bradley Weadapt 4 July</b>	1 hour in person meeting	To understand how Parliament works and discuss initial findings	Aspects of influence of business on parliamentary processes
<b>Behavioural Insights Team - Vaping researchers 4 July</b>	2 hour in person meeting	To gain insight into the perspective of organisations that have been pivotal in the development of vaping	Understanding of the starting point for vape design & of behavioural science involved
<b>Raouf Alebshehy Univ Bath Tobacco Tactics, WHO Tobacco Interference programme 6 July.</b>	1 hour zoom	To better understand the role tobacco as in the vaping industry and their influence on government policy	Greater understanding of the influence of business and examples in practice
<b>Helen Hayes MP 10th July</b>	15 minute discussion at her weekly surgery	To understand how vaping is being addressed in parliament & communicate my views	Understanding of process & how to communicate with parliament re issues

### ***Core filmed interviews used in final output***

#### **13 Interviews with young people**

I carried out 10 interviews in Newcastle and 3 in London. They ranged between 3 and 17 minutes, audio and video recorded. They were semi-structured based on 6 questions that aimed to understand how and why they used vapes.

I only interviewed young people who vaped as they would be the most in tune with the perception of young vapers. My interviews in Newcastle focused both on students and local people to get a mix of background and socio-economic status.

### **Respiratory Doctor - Dr Mike Waller, King's College London**

With the academic literature conflicting I decided to interview a respiratory doctor from Kings College Hospital as I thought his experiential knowledge would be valuable and compelling providing a grounded perspective alongside the academic literature.

### **Product Psychologist - Patrick Fagan**

The purpose of my interview with product psychologist Patrick Fagan was to provide a credible source of expertise on the psychology used in the design and marketing of successful products and to apply that thinking to vapes (which he had no knowledge of).

Unfortunately, the interview did not have the necessary visual impact to make the points I needed to make in the time I had. Instead I took the key concepts he identified and communicated them in a more succinct way using still images and text.

### **Ethical considerations**

The main challenges I faced revolve around the ethical dilemma inherent to my project - if by filling a communications gap and communicating about recreational vaping to non-smokers I dissuade smokers to quit by promoting further concern about vaping, I may indirectly cause harm to smokers in the longer term.

I was originally very nervous of questioning the Public Health evidence but when I saw from the data and lived experience the scale of the uptake of vaping in non-smokers combined with the evidence of short term lung damage from the most recent meta study and my interview with Dr Waller who was seeing more lung damage in scans at an earlier stage with vapes than with cigarettes, I felt on balance my approach was legitimate.

I hoped to achieve the right balance in pointing out the uncertainty in a way that still says vaping is better than smoking for smokers, while still being discouraging to young people wanting to use it recreationally.

### ***Creative output - content choices and rationale***

My film primarily aims to engage young people (18-25) in understanding the wider issues about vaping and perhaps inspire them to think twice about their own vaping habits.

To provide this new perspective I felt there were 4 main elements of the issue to engage them with:

1. Making the case that vapes have become a mainstream recreational product and young people are becoming addicted to them in large numbers.
2. The intentional design of vapes as a lifestyle product and the use of behavioural psychology to attract new young vapers
3. The 'nicotine economy' and business incentives of the industry
4. The uncertainties surrounding health effects

### ***Story arc***

I open with the voices of young people themselves to have them tell the story of the recreational use of vaping and their own usage. One of the main points I had to get across

was that young people saw vapes differently, used them recreationally and that for them vapes weren't about smoking.

Instead of simply using clips from my interviews I chose to visualise the 'trajectory' in the form of a story, going from a night out and social use to the at home addicted use. Then to explain the young person's perspective I used clips of audio from interviews to essentially narrate the story which brought emotional aspects to it through their honest self-reflection. This is rooted in the principles of Story, Emotion and credibility (Chip and Dan Heath, 2014).

Using the performative mode I then provide a narrative structure to the film which would both allow me to expand on the more nuanced aspects of the dilemma but also relate myself to my viewers who may have had similar feelings. I hope it may be engaging because my narrative journey may reflect the experience of many viewers, becoming more informed about social context, learning about the negative impact on other young people, and the role of business in creating a new nicotine economy. The format of addressing them face-to-face I hoped would give a more personal and authentic feel and be something they could engage with more. (Heath: credibility, emotion)

I then chose to feature the behavioural science principles of Patrick Fagan to illustrate the manipulative marketing techniques used to build an addictive lifestyle brand through a condensed collage of narrated evidence. These will not be known to my target audience and are concrete examples of the lifestyle marketing of vapes which fulfils qualities of both Unexpectedness, which is good to break down entrenched ways of thinking to new ideas, and Concreteness which makes it easier to remember (Heath: unexpectedness, concreteness).

To build this into my argument for the nicotine economy I framed the issue using the perspective of Mitch Zeller FDA tobacco expert in his TED talk, that these companies are nicotine companies. By doing this I escape the trap of harm comparisons and have a single focus on nicotine as the driver of repeated use, that indirectly causes harm and is solely relied on for profit. With this common factor singled out, the focus is then more easily placed on the parallels between vape and tobacco companies and the nicotine economy (addiction economy) business model they both rely on. (Heath: credibility, concreteness)

I then chose to focus on the research on health effects of vaping in their own right, separate from those of smoking. Building on this I chose to address the issues and uncertainties surrounding the health effects which I decided would be best to start by showing the non-evidential claim of the 95% statistic to attempt to break down preconceptions about the health effects of vaping. Then by following it with the interview with Dr Mike Waller I hoped the credibility and trustworthiness combined with his admission of uncertainty, despite it being his area of expertise, would be the correct approach to appropriately communicate this complex and nuanced issue. (Heath: credibility, concreteness)

I chose to conclude with a summarising monologue explaining my perspective and linking it to the nicotine economy and providing resources to help anyone wanting to quit vaping. I chose to end with a powerful visual from the WHO. (Heath: emotion, credibility)

## ***Conclusion***

My aspiration would be that using the modern approach of strategic impact documentary filming in performative mode would demonstrate an effective and direct style of science communication which speaks to the viewers' own experiences.

Science communication and science and technology studies often document the distance of science from real people. My choice of subject matter and communication style is an area which will be very close to many people's experience and the issues live and important to them now. I hoped to engage my viewers in the issues in an accessible and authentic way stimulating self-reflection and potentially action in response.

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***Joe Woof. October 2023***

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