Webinar Series on **Stakeholder Involvement** related to **Nuclear Power**











Lisa Berthelot
Stakeholder Involvement Officer
IAEA Division of Nuclear Power





Learning Objectives

By attending this webinar, you will be able to:

- •Recognize the importance of storytelling for nuclear communication
- •Identify a practical way to engage the public
- •Get experience from case studies





Today's Speakers



Dan Barczak



Cora Blankendaal



Malcolm Grimston





- Messaging is a national or organizational responsibility
- Use of creativity in storytelling
- Context matters for plain language





Let's interact

Stories about nuclear power. Check all that apply:

- ☐ I am responsible for crafting messages and stories about nuclear power in my job.
- ☐ My organization shares nuclear power stories but I am not involved in their development.
- ☐ I have come across engaging nuclear power stories by an organization.
- ☐ I have only heard technical language about nuclear power and don't feel very connected.





Today's Speakers



Dan Barczak

- Partner and Chief Creative Officer at Hyperquake, a brand evolution agency that helps businesses shift their future by creating and evolving brand experiences
- Translates what is most important, most interesting, and most relevant to a team's work
- Previous roles at Fisher Design and the Design Co-Op
- BFA in Communication Arts and Design from the University of Louisville

HYPERQUAKE

IAEA WEBINAR SERIES ON STAKEHOLDER INVOLVEMENT RELATED TO NUCLEAR POWER

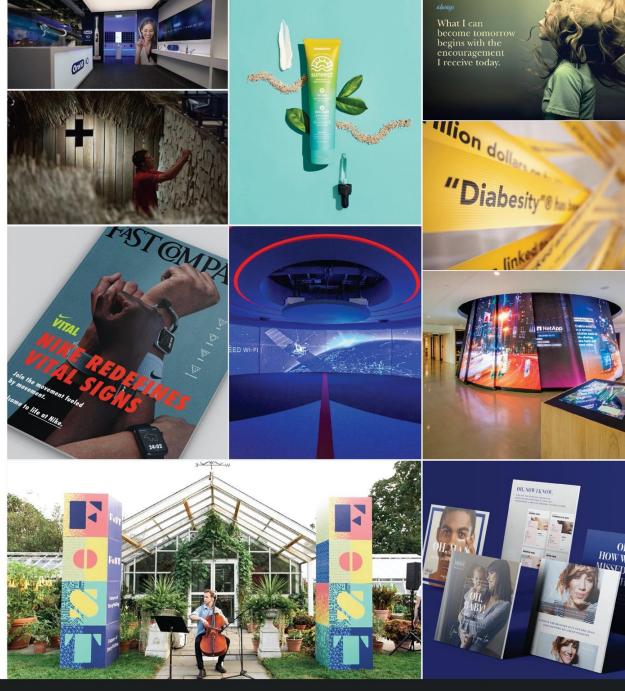
IAEA WEBINAR #5: MESSAGING, STORYTELLING & PLAIN LANGUAGE
TELLING YOUR NUCLEAR STORY
6.2.2020

I get to build for a living.

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THE POWER OF STORY THREE TOOLS PLAIN LANGUA

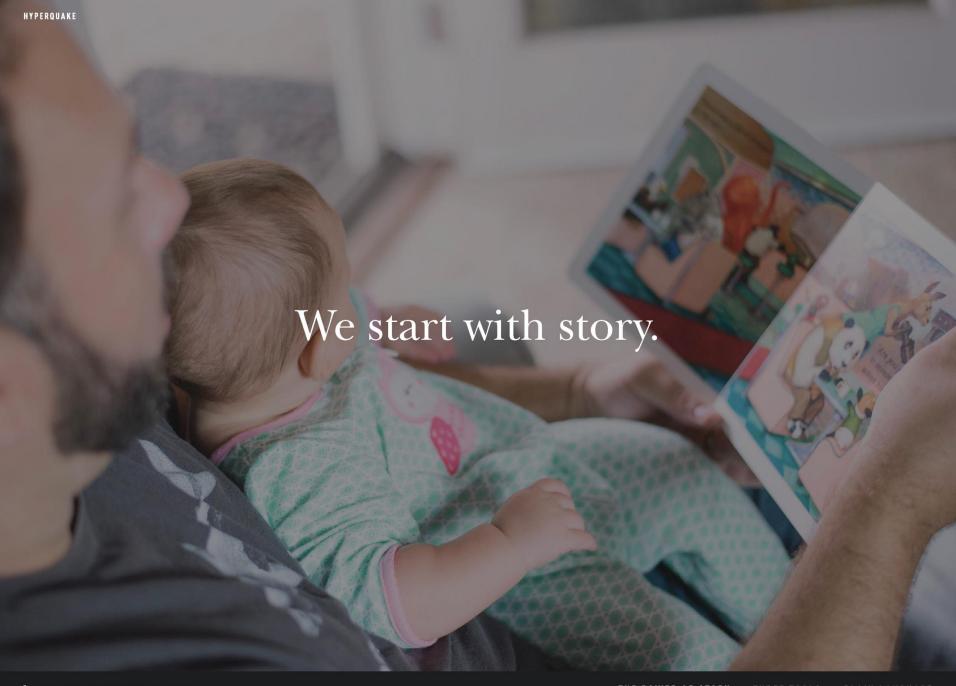
We build stories, brands, and businesses rooted in truth.



THREE THINGS:

Why story matters A few simple Storybuilding tools Plain language

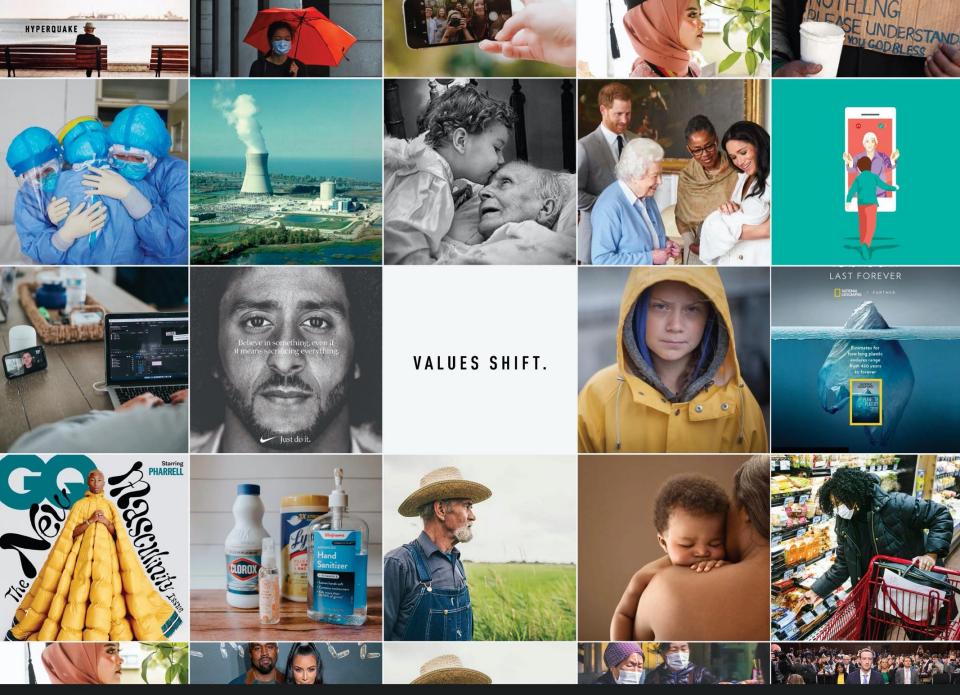
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You have to move people to move product, service, or even culture.

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FIOTONAL.



Do you consider yourself a great storyteller?

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THE POWER OF STORY THREE TOOLS PLAIN LANGUA



"No two people will experience life the same, so no two people will tell a story the same way. Think of this as a superpower we all have, your unique perspective."

- Valerie Lapointe, Pixar

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THE POWER OF STORY THREE TOOLS PLAIN LANGUAG



THREE STORYBUILDING® TOOLS

The Hero's Journey A Recipe, Not a Formula Archetypes

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THE POWER OF STORY THREE TOOLS PLAIN LANGUAGE.

The Hero's Journey

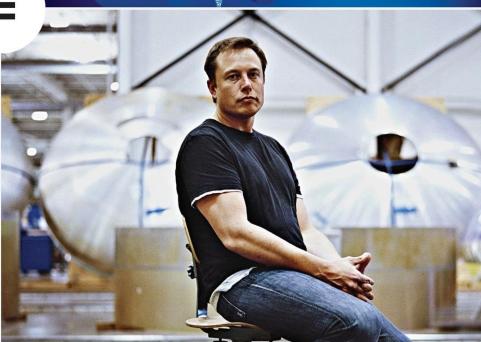


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Greatest female athlete ever.



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THE POWER OF STORY THREE TOOLS PLAIN LANGUAGE.



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THE POWER OF STORY THREE TOOLS PLAIN LANGUAGE.

Storytelling is a recipe, not a formula.

(10 seconds)

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THE POWER OF STORY THREE TOOLS PLAIN LANGUAGE

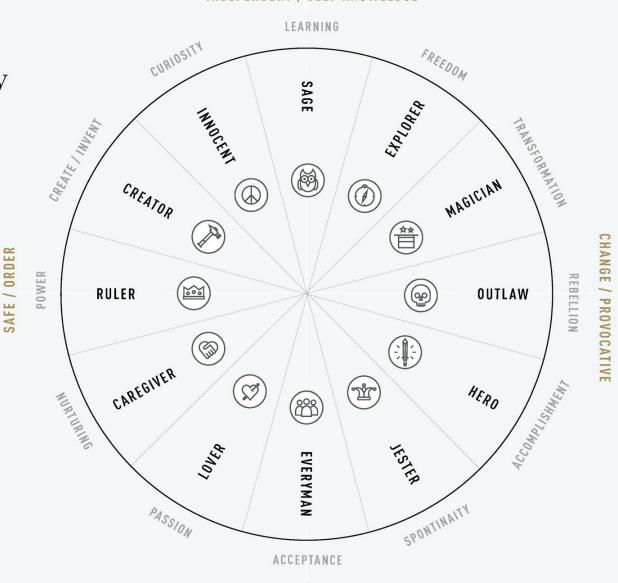


ARCHETYPES

Every great story has a cast of characters. ARCHETYPES

Every great story has a cast of characters.

CG. Jung.



GROUP / BELONGING

ARCHETYPES

Every great story has a cast of characters.

Brand are no different.



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THE POWER OF STORY THREE TOOLS PLAIN LANGUAG

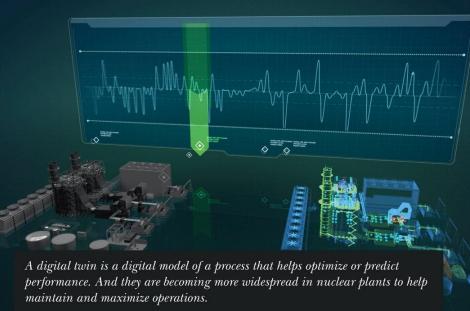
PLAIN LANGUAGE:

Story first. Data second. Help people learn <u>feel</u> something.

How would you explain your nuclear story to a 5-year old?

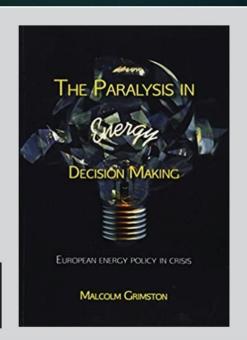
How can you build stories beyond the use of words?

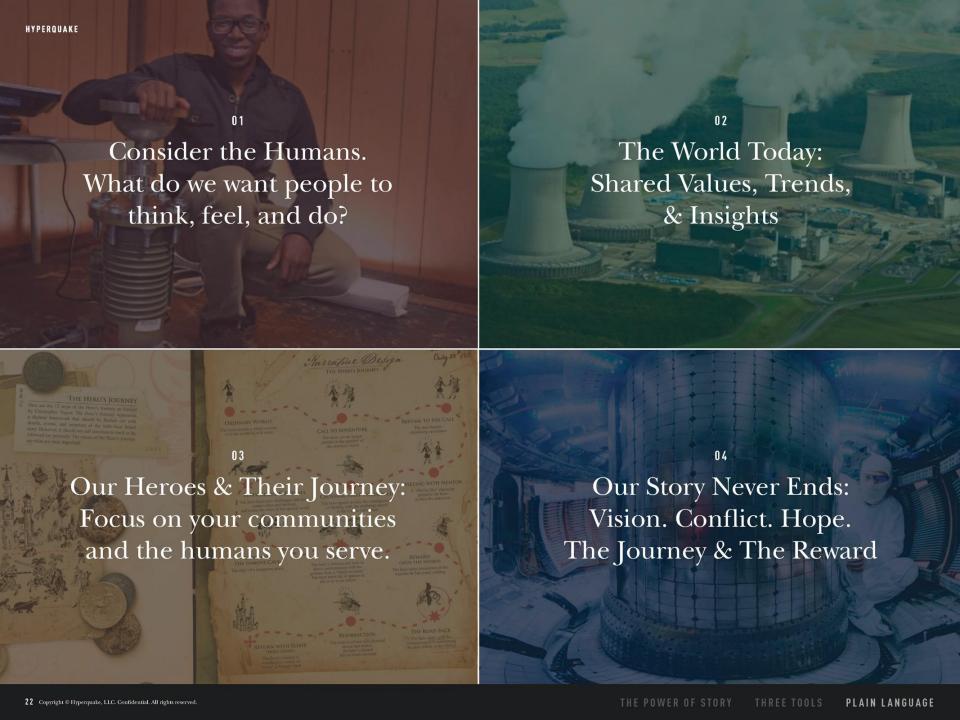






"The paralysis in Energy Decision Making: European Energy Policy in Crisis" by Malcolm Grimston





Thank you.
I'm always happy to listen to your story.

Dan Barczak

Partner, Chief Creative Officer, Hyperquake

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CINCINNATI

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HYPERQUAKE.COM







Today's Speakers

Cora Blankendaal

- Senior Communications Advisor at the nuclear research & consultancy group NRG in the Netherlands
- Responsible for Public Relations, External communications, Crisis Communications, Public Affairs and Spokesperson
- Winning team for the PIME Award for Communications Excellence for campaign 'Forward Thinking'
- External expert on Crisis Communication for the IAEA
- BA in Corporate Communications

A patient visits the nuclear medicine specialist

A story about the importance of a research reactor

Cora Blankendaal, The Netherlands, May 2020



Nuclear. For life.

NRG in the media in 2016



DONDERDAG 8 SEPTEMBER 2016

Voorop

Getal van de dag

miljoen euro

is de lening die de overheid heeft verstrekt om de productie van medische isotopen op peil te kunnen houden tot een tweede reactor is gebouwd. Wereldwiid zijn kankerpatienten afhankelijk van isotopen uit Petten.

Een ongeluk is in de maak, zeggen (oud)medewerkers

Veiligheid reactor Petten in geding

VRA werd vertraged.



Rien Floris

Petten * De veiligheid van de kernreactor in Petten is in het geding. De reactor wordt gezien als 'geldmachi-ne', signaleert een nucleair deskundige die vreest voor fouten door

menselijk handelen. De nucleair deskundige die het Energieonderzoek Centrum Neder land adviseerde, vreest toenemende onveiligheid door financiële druk op de exploitant van de kernreactor NRG. Dat schriift hii in een brief aan

de bel over de veiligheid. Een mede-werker van NRG maakte even later Ook de (oud)medewerkers die de melding van falende apparazuur in NOS meest angoiem heeft gespro-Petten waardoor transport van ra-dioactief afval naar de opslag bij CO-

ken, vrezen niet direct voor nucleai-re rampen. Ze zien zelfs dat er veel aan veiligheidsverbetering is ge-daan. Maar de medewerkers zien

Dat blikt uit een document rodfi dat in handen is van de NOS. De ernet van de situatie wordt bevestigd door meerdere personen uit kringen rond NRG. Bij het bedrijf in het Noord-Hollandse Petten worden medische isotopen gemaakt. waarmee wereldwijd miljoenen kankerpatiënten worden behandeld. 'Veiligheid is niet onze overkoepelende prioriteit'

De notitie is cogesteid door een nucleair deskundige, die door NRG was aangetrokken om orde op zaken te stellen. Bij zijn voortijdige vertrek heeft hij de directie van deze notitie op de hoogte gesteld. In het document is sprake van "perverse prikkels" als gevolg van een lening van 82 miljoen euro die het bedrijf



Opruimen nucleair afval Petten mogelijk door derden

Kamp: 'NRG noodsituatie'

NOS

Falende apparatuur vertraagt afvoer nucleair afval

Petten * Falende apparatuur is er het nucleair afval uit Petten naar de Covra in Zeeland vertraging heeft

Covra in Zeeland vertraging heeft opgelopen. Dat bevestigt de inspec-tiedienst voor nucleaire veiligheid ANNS naar aanleiding van bericht-geving in de Volkskrant. Die krant baseert zich op een lidok-kenhalder die werkzaam is bij NRG-de exploitant van de reactor in Pet-en-die een wertrouwelijke melding de exploitant van de reactor in Pet-ten-die een vertrouwelijke melding heeft gedaan bij de ANVS. Dat het vervoer van het afval is vec-traagd, was al langer bekend. Vol-

het investeren van wie miljonen Het bedrijfondenne fahrer dat het zi-cuurb nauweilijks voortgang ge-val zich ophoest. Volgens het sieden die zieden die

wak Een deel van de door NRG zelf anstelle Agrocie daar de Coraz in ONG III Pettettel noorseepen laarstelle de in aan je namen de de jarden on ge de deja voor in in bestelle fanger de pette de jarden on ge de deja voor in in bestelle heerde gelf on beseechted loog taliob versel yn de beseechted loog taliob versel de jarden on gelf de jarden hierde heerde jarden on de Angistoriusir

De Biodenilader entrè du re ven set, écorer de Visikanza.

Set Visik van Norder entrè du re ven set, écorer de Visikanza.

Set Visik van Norder entrè du re ven set, écorer de Visikanza.

Set Visik van Norder entrè de ven de v

drastische cultuurverandering, die ertoe heeft geleid dat wij hoge eiser Maximale alertheid, ook op klein



Roel van Leeuwen

Den Haag * De veertig miljoen euro die het Riik extra beschikbaar stelt voor het afvoeren van het nucleair afval in Petten naar het Covra in Zeeland is mogelijk niet voldoende. "Ik voel me niet safe wat dat betreft", gaf minister Kamp van economische zaken gisteren toe tijdens een debat in de Tweede Kamer.

NRG, de exploitant van de Hoge Flux Reactor in Petten, moest voor 1 oktober worden gered door het kabinet. Als het kabinet met de extra milioenen over de brug was geko-

men was het 'daar misgelopen', aldus de minister die sprak van 'een noodsituatie'.

Hij wilde het risico niet lopen dat de reactor buiten bedrijf moest worden gesteld en dat de productie van medische isotopen voor de diagnose en behandeling van kankerpatiënten wereldwijd gevaar zou lopen.

In het debat, dat niet alleen ging over de splitsing tussen NRG en de duurzame tak van het Energieonderzoek Centrum Nederland (ECN). gaven meerdere Kamerleden aan bezorgd te zijn over de kosten voor het opruimen van het afval.

In het verleden moest het Rijk ook al van Tongeren (GroenLinks) liet de dat ECN uitvoert ook voor de langemeermalen met milioenen euro's minister weten dat er volgens hem re termiin in Petten bliift,

over de brug komen.

Volgens Kamp was er nu feitelijk geen andere keuze dan het redden van NRG. "We hebben berekend dat als we de activiteiten zouden laten aflopen de rekening volledig bij ons zou komen. Dat zou 219 milioen euro kosten." Hij stelt dat nu is berekend dat er 40 miljoen euro nodig is om het nucleair afval op te kunnen over het nucleair afval, maar ook ruimen. "Maar ik ben niet overtuigd van die raming. Daarom ga ik grondig onderzoek instellen. Daarbii kiiken we ook of we het opruimen misschien beter door derden kunnen laten doen."

In reactie op een vraag van Liesbeth

geen sprake is van ongeoorloofde staatssteun aan NRG.

De duurzame tak van ECN wordt samengevoegd met onderdelen van TNO tot een nieuw Energieonderzoek Centrum Nederland, In de Kamer waren er zorgen over de combinatie met TNO, Ian Vos (PvdA): "ECN levert een waardevolle bijdrage aan fundamenteel onderzoek naar duurzame energie. Die rol willen we voortgezet zien, maar is dat gewaarborgd als dit onder wordt gebracht bij TNO, TNO heeft een fossiel imago

Agnes Mulder (CDA) drong er op aan dat het duurzame onderzoek

30,000 per day - Creating support by social media



Dutch politics unanimously on the importance of Medical Isotopes









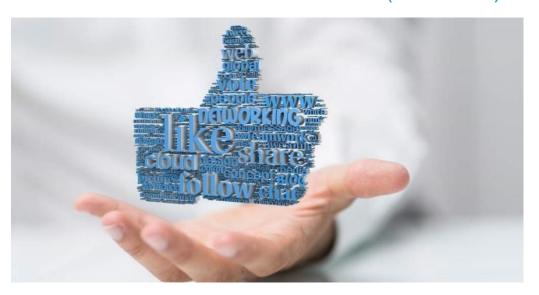
Creating a fanbase

Enlarge their knowledge

- NRG ≠ nuclear power
- ≠ waste company
- Safety

Yes:

- Medical isotopes
- Petten keeps license to operate
- New build is needed (PALLAS)





Creating a YES for Petten



Ratio & Emotion

- Touch by emotion: first step to create a yes
- More information to explain the why

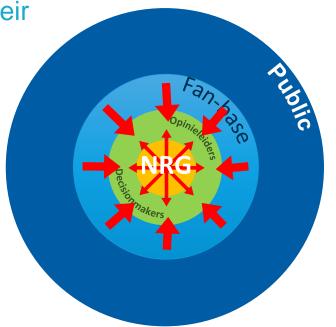


Communication with the public

Directly to people, our target group:

Everybody with cancer and their families.

- 18 years and older (voting rights)
- Decisionmakers hear also the story from their own community





Social Media Campaign: On the way to Petten



Series social media movies with experience of cancer survivors.

Interviewer Fien Vermeulen, radio DJ drives together with cancer surviver in a car to the reactor in Petten..



They talk about how they experienced the sad news, how their friends and family react, but with a focus on the positive end. They survived cancer. The reactor is not the topic of the conversation but the trigger for the conversation.



30000perdag.nl (**30000perday**)

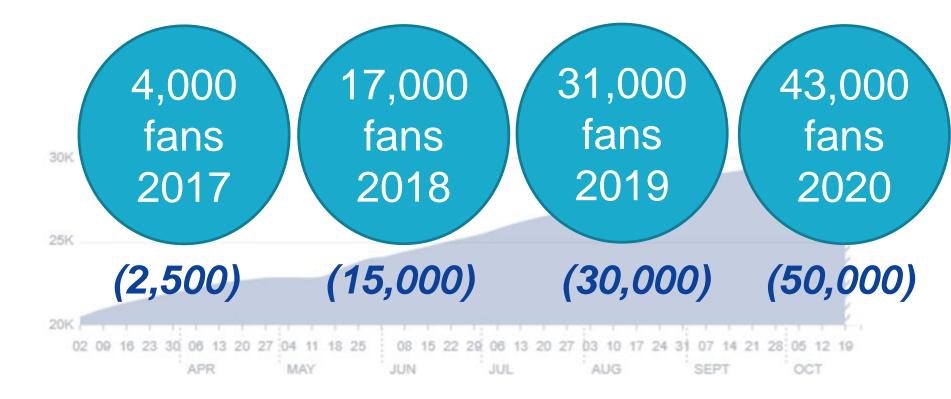
30,000 per day - Creating support by social media



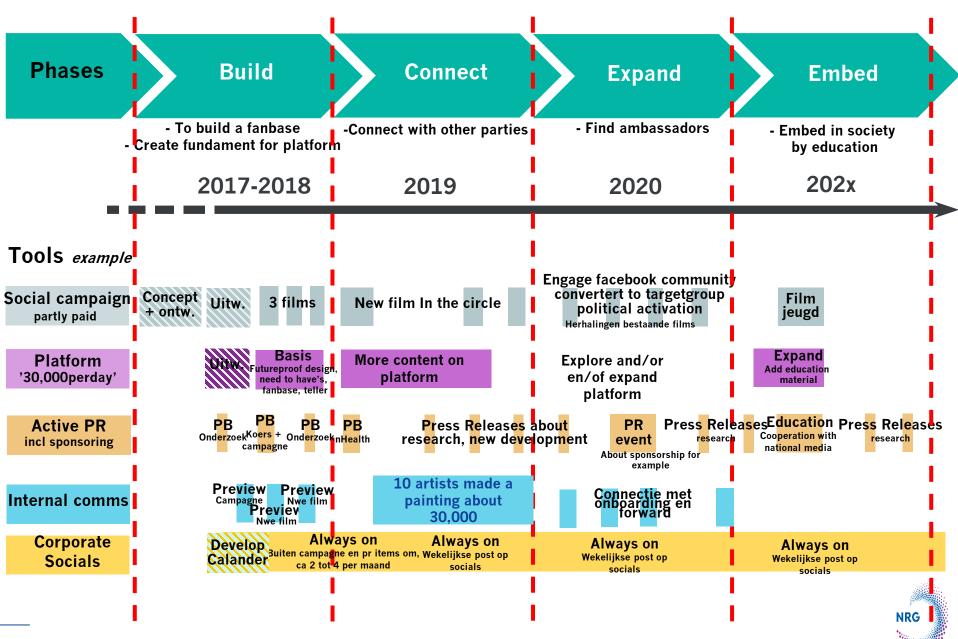


Campaign results (launch November 2017)









It works!

Public, politicians are standing up for us! They will do it, but you have to give them a story:

Each day 30,000 patients can rely on medical isotopes from Petten



Nuclear. For life.





Today's Speakers

Malcolm Grimston



- Degree in Natural Sciences with specialisation in psychology from Cambridge University
- Former roles as chemistry teacher, and at UK Atomic Energy Authority and Chatham House
- Senior Research Fellow at Imperial College, UK
- Regular media contributor on energy and nuclear matters
- Author of the book The Paralysis in Energy Decision-making and co-author of Double or Quits – the global future of civil nuclear energy and Civil nuclear energy – fuel of the future or relic of the past?
- Currently working on MIT project on the International Nuclear Event Scale (INES)
- Elected Councillor (local government) in Wandsworth, southwest London



A Tale of Two Psychologies

Malcolm Grimston, Imperial College

IAEA webinar "Storytelling and Plain Language" June 2 2020

Evidence suggests that there are systematic psychological differences between 'the type of people who go into industries like nuclear power' and 'the general public'. Of course there are many individual exceptions on both sides but broadly speaking the respective personality types, in Myers-Briggs Type Indicator (MBTI) terms, can be characterised as follows.

NOTE – MTBI analysis does not put people into neat 'boxes'. Each of the four personality factors represents a spectrum – so some 'introverts', for example, are very much in their own world, others are quite gregarious but occasionally need to get away on their own to recharge their batteries.

6

'Nuclear types' are much more likely to view the world in terms of analysis of things rather than gut feelings about people – 'thinking', T, rather than 'feeling', F – than is the population at large, which splits quite evenly. (There are very significant gender differences in the general population, with about 3/3 of men being predominately 'T' and a similar proportion of women being predominately 'F', but women in science, technology and management are still very likely to be T rather than F.)

'Nuclear types' (especially those who communicate) are notably more likely to see the world in terms of theories and future possibilities (a 'top-down' approach), rather than building up a picture of reality from what comes in through the senses with the stress on the here and now – 'intuition', I, rather than 'sensing', S – than is the population at large. 'Commonsense' is a big watchword for the S personality.

'Nuclear types' are a little more likely to seek 'the answer' to an issue whereby they close down discussion and try to make the world conform to this answer, rather than being comfortable or even embracing uncertainty and the world's quirkiness – 'judging', J, rather than 'perceiving', P – than is the population at large.

'Nuclear types' are slightly more likely to get their energy and inspiration from within themselves and to prefer writing as a means of communication, rather than getting their energy and inspiration from the people around them and thriving on verbal communication - 'introverts', I, rather than 'extrovert', E – than is the population at large. (The difference here is minor and I will not dwell on it.)

A Doomed Romance

People with different MBTI profiles genuinely see the world as a different place and are attracted towards different kinds of profession or activity. So, while stressing again that there are many exceptions and that these are all matters of degree rather than category, the 'typical' nuclear personality type – INTJ, sometimes characterised as the 'architect' or the 'strategist' – tends to:

focus on the big picture, rather than the details;

make logic-based decisions and follow intuition;

set ambitious goals for themselves and others;

pursue deeper understanding of complex topics rather than a cursory knowledge of a wide range of topics;

be more comfortable with written communication than oral.



A Doomed Romance

By contrast the 'typical' member of the public – ESFP, sometimes referred to as 'performer' or 'entertainer' – tends to:

be very practical and resourceful, preferring to learn through hands-on experience; live in the here-and-now and sometimes be less interested in how current actions will lead to long-term consequences;

prefer verbal to written communication;

be understanding and perceptive when it comes to other people;

like new experiences and 'things going wrong' (within reason).

A Doomed Romance

Research suggests that around 43% of the population are in the SF quadrant while only around 10% are in the NT quadrant. Just over 17% of the population are in the SFJ categories (ESFJ and ISFJ) while only 4% are in the NTP categories (ENTP and INTP).

People with different MBTI profiles to a degree (instinctively) presume everyone else either does (or should) see things in broadly the way they do.

Heroes and Villains

In the classic media set-up of an 'expert' with 30 years of experience in the statistics of a particular field and an individual who is convinced that their child's illness was caused by the activity in question:

- the NT is strongly influenced by the 'expert';
- the SF is strongly influenced by the 'person'.

Distribution of types (2011)

	S/N	T/F	J/P
UK public (n = 1634)	76%/24%	46%/54%	58%/42%
Sweden (n = 914)	63%/37%	48%/52%	56%/44%
Germany (n = 228)	54%/46%	67%/33%	53%/47%
Netherlands (n = 214)	66%/34%	49%/51%	51%/49%
TOTAL (n = 2990)	70%/30%	48%/52%	56%/44%

Distribution of types (2011)

	S/N	T/F	J/P	
'Public'	70%/30%	48%/52%	56%/44%	
		(Men 62%/34%)		
		(Women 29%/71%)		
Science/engineering	58%/42%	88%/12%	71%/29%	
Education	40%/60%	72%/28%	69%/31%	

The (US) public and the research community

	US 'public'	US climate researchers	EU nuclear researchers (n = 24)
S-N	73%-27%	18%-82%	28%/72%
T-F	40%-60%	49%-51%	62%/38%
J-P	54%-46%	76%-24%	69%/31%

Science fiction and fantasy

Broadly speaking, the narrative that has driven the nuclear industry's approach to public perceptions can be summarised quite simply. "The public is irrational and/or ill-informed. Plugging the public full of 'facts' will correct this deficit and result in widespread public support for nuclear power." So statements like the following have characterised the nuclear industry approach for decades.

- "Your fear of radiation is irrational." (2015)
- "Educating the public is key to reclaiming our nuclear heritage." (2014)
- "The irrational fear of radiation." (2009)
- "The principal problem in public acceptance of nuclear power is irrational fear of radiation ..." (1996)
- "The first principle underlying the irrational fear of nuclear power ..." (1983)
- "Today irrational fear predominates." (1971)
- "Public education most urgent, reactor-site experts agree." (1965)

Science fiction and fantasy

One can see how such an approach would appeal to the nuclear personality type. It is about analysis and data, which is how everyone should make up their minds on an issue, yes? It allows for a lot of theorising and it implies that there is 'an answer' to the range of complex issues that surround nuclear energy in society (and of course that the industry knows that answer).

Imperial College London

Comedy/Farce

It is often the 'public' who are 'rational' and the industry 'irrational' in communication issues. Some examples of where it can be argued that the industry has 'got it wrong':

'Radioactive waste is not very dangerous but we are going to bury it 800 metres underground.'

Industry's NT- people will be reassured by this.

Public's SF response – this is the most dangerous stuff mankind has ever produced (we don't bury anything else 800 metres underground), so we should be scared. And what's more these jokers must think we are idiots if they expect us to believe it is not very dangerous at all, so we won't believe them ever again. Help!

'Safety is the top priority.'

Industry's NT belief – people will be reassured by this.

Public's SF response – ...

'We have spent a fortune on a monitoring system that can pick up radioactivity many thousands of times below danger levels.'

Industry's NT belief – people will be reassured by this.

Public's SF response – ...

Tens of thousands of people must not return to their homes near Fukushima because we are 'erring on the safe side'.'

Industry's NT belief – people will be reassured by this.

Public's SF response – ...

Drama-Documentary

Major Conference 2014 – one speaker bemoaned how the public did not realise that man-made radiation was the same as the natural radiation all around us. A huge effort was needed to correct this misimpression, so making nuclear power more acceptable, including educating the media to understand this.

Drama-Documentary

What does the well-informed member of the public know (or at least what unarguable facts are in the public domain) – taking Japan as an example?

First and foremost, almost 100,000 people have been banned from living in their homes in a 20 km radius zone around Fukushima Dai-chi for over three years, causing untold misery. In much of the zone doses from radiation (from all sources) are below 5 mSv per year, with fallout does below 1 mSv per year.

Secondly, there are areas like Ramsar in Iran (average 130 mSv per year) and Guarapari in Brazil (peak levels on the beach of 40 µSV per hour, equivalent to 350 mSv per year) which are not evacuated. Indeed, there are areas of Japan (e.g. the Misasa spa area) where natural doses are above the total dose in some part of the exclusion zone.

A Twist in the Tale

What could the well-informed member of the public make of this?

Three options:

- 1. The authorities have blighted many lives and incurred vast costs for no very good reason
- 2. The authorities are being untruthful about the levels of contamination in the exclusion zone in an attempt to cover up the seriousness of the accident.
- 3. Man-made radiation must be significantly more dangerous than the 'same amount' of natural radiation, so comparisons are meaningless.

A Twist in the Tale

- Assume that the media and the people are successfully persuaded that their perfectly understandable rationalisation of the undisputed facts in front of them (option 3) is incorrect.
- The facts don't change, so a new rationalisation is needed.
- It is not immediately obvious that a switch to believing 1 or 2 would improve people's faith in the industry or in the concept of nuclear power.

A Twist in the Tale

So – far from people being misinformed by malign influences, including the media, into believing man-made radiation is more dangerous than it actually is, people may actually come to this view in an attempt to rationalise what they see in front of them, i.e. the entirely irrational behaviour of the authorities.

Ironically, one suspects that the irrational behaviour was adopted in an attempt to reassure people!

Historical Tale

It is claimed that Winston Churchill used to say, when making up his mind about a case being put to him, that he would first look at who was saying it; then how they were saying it; and only then at what they were saying.

The Denoument

The same set of messages will carry a different narrative depending on the personality of the consumer. The nuclear industry's narrative, dominated by analysis, 'facts' and theories which cannot be 'checked off' against everyday reality, is attractive to NT personalities. However, this is only 10% of the population.

The Denoument

More than four times as many people build up their narratives in terms of what they make of the people in front of them, the likely effects on their friends and family and whether the message conforms to 'commonsense' and can be visualised and checked in terms of the evidence of their own senses.

It will serve little purpose to get frustrated at the population because it does not see life in the same way the scientists and engineers do; as narratives are constructed they should be done so in a way that will work with the psychological grain of the population, not against it.







Where do you work?

- Government
- Regulator
- Operator
- NEPIO: Nuclear Energy
 Programme Implementing
 Organization
- Technical Support Organization
- NGO
- Academia

- Research Institution
- International Organization
- Media
- Private Sector-non-nuclear
- Nuclear Advocate /Independent Advocate
- Other
- I prefer not to say





Q&A











Before you go...

