

## **Agnotology and knowledge management in parliamentary library and research services**

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### **Abstract:**

*The exclusion of ignorance from Knowledge Management is a weakness. The paper considers the significance of agnotology – the deliberate creation of ignorance – and other aspects of ignorance for the work of parliamentary libraries and research services. Ignorance is frequently a rational choice and the supposed rejection of expertise and the impact of ‘post-truth’ politics are both exaggerated and open to more positive interpretation. Parliamentary services must nevertheless engage with these issues, and the real disconnects between scientific knowledge and political decision. Engagement raises questions for the way these services work, what they offer and their ethical framework.*

**Keywords:** Parliamentary; Knowledge; Ignorance; Agnotology; Post-truth.

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### **INTRODUCTION<sup>1</sup>**

The discipline of ‘knowledge management’ (KM) is of obvious interest to information and research services but it does not appear to have taken off. Why not? And with ‘post-truth’ politics has knowledge anyway lost some of its real and symbolic value to parliaments?

### **KM AND IGNORANCE**

One possible reason for KM not fulfilling its promise is that it has not engaged with *ignorance*. Consider definitions of KM:

“ “A discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving, and sharing all of an enterprise’s information assets”... [while a more recent suggestion is] “... the effective and accurate management of knowledge (acquisition, creation, storage, sharing, and use) used to promote and support organizational changes that enhance an organization’s ability to effectively

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<sup>1</sup> This paper expresses a personal point of view on issues concerning the profession globally: it does not primarily concern European Parliament matters and does not represent the view of the European Parliament. It is an updated and condensed version of a paper presented at the ECPRD Seminar ‘Innovative services for Parliamentary Libraries, Research Services and Archives’, 9 September 2016, Oslo, Norway

compete”...This concept of KM includes and emphasises access to external information, the traditional domain of the library...**KM is now seen as about information relevant to an enterprise, whether internal or external.**”<sup>1</sup> [emphasis added]

Ignorance is absent – implicitly it is just *lack of knowledge*. But ignorance has an existence, force and even a value, of its own:

“Ignorance is most commonly seen (or trivialized) ...as something in need of correction, a kind of natural absence or void where knowledge has not yet spread.... But ignorance is more than a void - and not even always a bad thing”<sup>2</sup>

Failing to address the management of ignorance is one possible reason for the under-performance of KM. And one reason for this failure is that no-one wants to speak about ignorance – it is a cause for shame – and there are consequences:

“outlawing the concept of ignorance to the realm of the unmentionable in management contexts does not lead to a higher ideal in management, but instead creates an opportunity for detrimental ignorance to rule”<sup>3</sup>

A notable paper by Israilides addresses ‘ignorance management’:

“the critical question is not just managing what is known but also trying to find ways to manage the unknown. This viewpoint of acknowledging ignorance, if successfully incorporated within a company’s KM strategy, will not only facilitate and enhance knowledge management processes but will also foster innovation and increase the levels of new knowledge...”<sup>4</sup>

The weakness in KM in relation to ignorance was already identified at least twenty years ago.<sup>5</sup>

## **THE NECESSITY OF IGNORANCE**

The amount of knowledge is constantly increasing, being both a cause and consequence of specialisation; the technology to capture and access knowledge has increased massively; but the capacity of an individual human to memorise, process, analyse and learn has maybe not increased at all.<sup>6</sup> Everyone is increasingly ignorant, and, on the whole, we benefit from it.

What is written about ignorance in politics is mostly focused on voters, not politicians, and it largely concerns ‘rational ignorance’:

“rational ignorance is...ubiquitous...Because there are severe constraints on our time, energy, and cognitive capacity, it often makes sense to devote our limited resources to activities other than acquiring additional information. Much of the time, such rational ignorance is actually beneficial.”<sup>7</sup>

An individual voter has no time or capacity to fully understand issues - and one vote gives no real influence - so it is rational to remain more or less ignorant. It does not necessarily lead to a bad decision:

“I have observed focus groups of swing voters...and been struck by a combination of haziness on detail and acuity in extracting the essence of a situation. They often discern the outline of the wood [i.e. forest] better than those of us who spend our lives scrutinising bark on the trees.”<sup>8</sup>

Individual Members also face a plethora of issues with no possibility to master them. Their ability, with limited information, to grasp the core of an issue and come to a workable conclusion, helps define their profession. There is even a school of thought that political choice and evidence should be kept apart.<sup>9</sup> In diplomacy and politics, it can be better *not* to know some

things, or to act as if they are not known. Genuine ignorance can provide advantage – openness to the unknown, new evidence and thinking; readiness for the unexpected.<sup>10</sup> Awareness of ignorance is what stimulates discovery and the development of knowledge.<sup>11</sup>

## **THE REJECTION OF EXPERTISE IN POLITICS**

The rejection of expertise was much commented on in the Brexit and US presidential campaigns. It calls into question the value of parliamentary knowledge services. However, it requires interpretation.

In the Brexit campaign, people apparently rejected expertise that was seen not to be neutral; or when the experts had purely sectoral knowledge; or made highly detailed predictions about the future. Discussing the rejection of the expert view of *economists*, for example, some economists suggested

“the issue may be that the economics profession is not just seen as part of the class that benefits from the modern economy, it is part of a different class, a privileged class that especially benefits from EU membership.”<sup>12</sup>

Or as Lacasse noted in relation to cases where there was apparent expert unanimity:

“Quand tout le monde sait, c’est probablement que personne ne sait vraiment...Quand les assertions sont ex cathedra, on protège son porte-feuille aussi automatiquement que quand un interlocuteur inconnu répète trois fois « Je suis honnête » dans les premières deux minutes. Dans nos sociétés, l’unanimité n’existe que sur les plus vagues valeurs et désirs de consensus (le plein-emploi, la stabilité des prix, plus plutôt que moins, etc.). Toute politique (c’est-à-dire tout moyen faillible et limité) qui prétend à un tel statut est suspecte.”<sup>13</sup>

The rejection of expertise may not be well-founded in every case but it is not simply irrational.

Second, there *is* reason not to trust expert predictions. A study of expert predictions<sup>14</sup> by 280+ specialist commentators/advisors in politics/economics<sup>15</sup> on some 27,000 forecasting questions over twenty years showed that experts “are poorer forecasters than...monkeys” throwing darts at options pinned to a wall.<sup>16</sup> High-profile, highly-specialised experts (‘hedgehogs’) generally performed worse than less-known specialists, or even generalists who had read quality journalism around a topic, with open minds and flexible approaches (‘foxes’).<sup>17</sup> The public (and Members) have reason to be cautious with forecasts or recommendations by experts.<sup>18</sup>

Members are quite likely to be ‘foxes’ themselves. This points to a role for knowledge services in developing Members’ own capacity in policy analysis and their broad knowledge of key policy issues. Member training/education is a sensitive topic which tends to be discussed only in relation to new parliaments or those in less developed countries<sup>19</sup> - even then it may be disguised.<sup>20</sup> But in any parliament, there is

“the expectation that parliamentarians can understand and respond to the infinite variety of constituency problems, issues of national importance and policy challenges that are dealt with by a parliament at every session. MPs are confronted with decisions about matters that may be within their area of expertise, but they are also expected to participate in the resolution of issues for which they have no formal training and little previous experience. We live in an information-rich world, but one where the danger of information overload is ever present.”<sup>21</sup>

However, compared with the Executive and Judiciary:

“The members of the legislature alone have no formal training or education in the specific and particular skills that they need, nor do they have equivalent support to carry out their role and match the capacity of their governance partners.”<sup>22</sup>

Rather than the traditional model of ‘apprenticeship’ for Members the proposed solution is to adopt a model of ‘professional development’ or *adult education* methods<sup>23</sup>, and not just in induction of new Members.<sup>24</sup>

Other research confirms that experts tend to ignore evidence contrary to their beliefs. Hatemi & McDermott<sup>25</sup> report on political attitudes:

“When presented with the same evidence, individuals who began on different ends of political issues find increased validity in their own positions and interpret neutral information as supporting their own positions .... The effects are most pronounced among those with strong attitudes and higher levels of sophistication...**the people who are the most knowledgeable are also the most vulnerable to ideologically consistent bias**”<sup>26</sup> [emphasis added]

There are good reasons for voters, and Members, to be cautious in following inputs by experts invested in the issue on which they are commenting or forecasting. Hatemi and McDermott note that this natural tendency to respond differently to the same set of information leads to persistent mutual incomprehension between political groups. Possibly the concentration and development of Member expertise in permanent specialist Committees - supported by knowledge services - allows the time and space for cross-party links to develop, for the absorption of common expertise, and for greater openness to contradictory messages. This may work in parliaments where Members are supported by a neutral secretariat and knowledge services, but apparently less well in e.g. the US Congress where party-labelled officials provide most of the support to the committee collectively.<sup>27</sup>

### **AGNOTOLOGY AND SCIENTIFIC SUPPORT FOR ANYTHING**

Humans have the ability to make fast & frugal, good-enough, decisions – but it can be subverted. There is the possibility to generate ignorance i.e. create doubt where there would otherwise be certain knowledge. The strategy (and its study) has been termed ‘*agnotology*’.<sup>28</sup> The classic case was the effects on health of smoking tobacco. There was a clear scientific consensus that smoking was harmful but some tobacco companies promoted the relative handful of sceptical scientists to create the impression that there was no certainty. The strategy was effective for decades. A similar strategy is, arguably, being played out with e.g. climate change. One issue for parliamentary research is how it positions itself to be ‘impartial’, ‘objective’ or ‘balanced’. Which, in cases of *agnotology*, might mean giving credence and authority to a viewpoint that commands only eccentric scientific support.<sup>29</sup> Mainstream scientific opinion may take an active role in challenging policy positions based on contrarian science<sup>30</sup> but this may not change the appearance of doubt. One suggestion for responding to a strategy of doubt is to develop/appeal to trust rather than trying to use knowledge to dispel ignorance.<sup>31</sup> It is argued, however, that scientists are not well placed to gain that trust. At least some parliamentary services believe they *have* developed deep trust amongst both Members and the public. If true, scientific content wrapped in the brand of the knowledge service could play a role in combatting *agnotology* - with some risk.<sup>32</sup>

Even without *agnotology*, public policy issues are often complex with no clear scientific conclusion or recommendation. Rather than try to resolve this complexity, decisions may be taken based on established ‘myths’ despite all the scientific evidence that is gathered. These observations (on decisions in an administration) were made almost twenty years ago:

“les savoirs multiplient les choix, compliquent la vie, agressent les monopoles, mettent en lumière (donc en cause) les conséquences de délicats équilibres entre demandeurs de

faveurs et monde politique. Rien d'étonnant à ce qu'ils perdent un combat aussi inégal, à ce que leur contribution au changement soit aussi mince.”<sup>33</sup>

More recently, Schultz assessed political ignorance in the United States at both voter and Member level and found that

“policy is made despite the fact that good evidence suggests that a specific course or action or idea will fail, or has repeatedly failed in the past, or that there is paltry evidence that it will be successful”

And that while even

“among good-faith researchers seeking to find correct answers there are often debates about what is known regarding a specific issue and it is often hard to sort out truth.

But now throw in think tanks and groups spinning truth, with the media often incapable or digesting this material, and legislators and policy makers unable to make sense of it, and it is no surprise that ignorance prevails.”<sup>34</sup>

His explanation is partly a set of political factors but also, notably for knowledge services, that (social) scientists

“have done such a poor job in communicating their research to a broader audience”<sup>35</sup>

The explosion in academic publication has increased the problem:

“Mainstream scientific leaders increasingly accept that large bodies of published research are unreliable. But what seems to have escaped general notice is a destructive feedback between the production of poor-quality science, the responsibility to cite previous work and the compulsion to publish....

...the web makes it much more efficient to identify relevant published studies, but it also makes it that much easier to troll for supporting papers, whether or not they are any good.

That problem is likely to be worse in policy-relevant fields such as nutrition, education, epidemiology and economics, in which the science is often uncertain and the societal stakes can be high. The never-ending debates about the health effects of dietary salt, or how to structure foreign aid, or measure ecosystem services, are typical of areas in which copious peer-reviewed support can be found for whatever position one wants to take”<sup>36</sup>

We must deliver useful knowledge in a world where ignorance is deliberately or accidentally developed. What response do we have, and does ‘KM’ assist with it?

## **EXPERTISE WITHOUT CONSENSUS**

The classic knowledge service role is in delivering objective, non-partisan fact-based analysis, crucially providing solid ground on which Members (and parties) can debate, and eventually arrive at evidence-based policy choices.<sup>37</sup> This passed in the long period of post-war consensus in the West. Since the 1990’s, at least, politics has changed and we have cleavages in which established parties have little common ground with what can be called insurgent parties, and factions even in some established parties become irreconcilable.<sup>38</sup> We could reach a point where some will not wish a research question posed and others will not want to hear the answer. The commitment of knowledge services to knowledge itself, their ethical base which should go beyond their commitment to individual clients and to the transient desires of the organisation, would be tested. As of now, there is no common ethical framework for parliamentary knowledge services.

## POST-TRUTH AND THE ACUITY OF CITIZENS

We have the apparently new phenomenon of ‘post-truth’ or ‘post-factual’ politics, going beyond rejection of expertise to questioning even basic facts and hard evidence. Deliberate disinformation can circulate widely and unstoppably with facts following far behind and with less reach. Meanwhile, social media creates echo chambers where dissonant information is filtered out. For Viner<sup>39</sup>, the Brexit campaign combined what has elsewhere been termed agnotology *and* the ‘post-factual’ approach:

“This was the first major vote in the era of post-truth politics: the...remain campaign attempted to fight fantasy with facts, but quickly found that the currency of fact had been badly debased...

The remain side’s worrying facts and worried experts were dismissed as “Project Fear” – and quickly neutralised by opposing “facts”: if 99 experts said the economy would crash and one disagreed, the BBC told us that each side had a different view of the situation... [A leading politician] declared that “people in this country have had enough of experts” ...

...the main funder of the Leave.EU campaign [said]...that his side knew all along that facts would not win the day ... “What they said early on was ‘Facts don’t work’, and that’s it. The remain campaign featured fact, fact, fact, fact, fact. It just doesn’t work. You have got to connect with people emotionally. It’s the Trump success.”<sup>40</sup>

‘Facts’ can anyway be uncomfortable:

“If all the facts say you have no economic future then why would you want to hear facts? If you live in a world...where your government seems to have no control over what is going on, then trust in the old institutions of authority – politicians, academics, the media – buckles.”<sup>41</sup>

The marginalisation of ‘facts’ is argued to be part of a wider phenomenon:

“This equalling out of truth and falsehood is both informed by and takes advantage of an all-permeating late post-modernism and relativism, which has trickled down over the past thirty years from academia to the media and then everywhere else. This school of thought has taken Nietzsche’s maxim, there are no facts, only interpretations, to mean that every version of events is just another narrative, where lies can be excused as ‘an alternative point of view’ or ‘an opinion’, because ‘it’s all relative’ and ‘everyone has their own truth’ (and on the internet they really do).”<sup>42</sup>

As suggested earlier, this perspective may overstate the solidity of the ‘facts’ being ignored, dismiss as ‘fantasy’ what may have at least the possibility of truth, and underestimate citizens’ ability to make serious choices that contradict elite (expert-supported) views. As Francis Fukuyama drily observes:

“Populism” is the label that political elites attach to policies supported by ordinary citizens that they don’t like. There is of course no reason why democratic voters should always choose wisely, particularly in an age when globalization makes policy choices so complex. But elites don’t always choose correctly either, and their dismissal of the popular choice often masks the nakedness of their own positions.”<sup>43</sup>

The consequence of political competition driven on a “non-factual” basis (i.e. a basis of ignorance) is that the value of knowledge services diminishes. If evidence cannot be used to convince others or to legitimise a decision, it loses value. How do we respond to this?

## THE DANGER OF BEING WELL-INFORMED

We might also consider the risks that come with knowledge service *success* in informing Members. Rappert and Balmer, in relation to intelligence agencies, observe that providing information does not necessarily lead to optimal decision-making. It can lead to *the reinforcement of ignorance* - over-confidence in policy positions and lack of awareness that there are uncertainties and unknowns.<sup>44</sup> What responsibility, and what toolbox, do knowledge services have to disturb ‘unfounded certainties’ in parliaments?

## CONCLUSION

Forms of ignorance, much of it positive, are an unavoidable and active factor confronting the management of parliamentary library and research services. The study of ignorance and its effects remains an emerging field and there is much yet to be understood. Management practices responding to the different facets of ignorance exist but are implicit, especially because of the stigma attached to ‘ignorance’. Agnotology, scientific uncertainty, ‘post-truth’ politics and new cleavages in politics are all increasing the impact of ignorance on knowledge services. Managing ignorance is essential as a complement to KM but where is the methodology and debate on how to do it well?

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## References

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- <sup>2</sup> Proctor, Robert N. in ‘Agnotology - the making and unmaking of ignorance’ Robert N. Proctor & Londa Schiebinger (eds.), Stanford University Press, Stanford, 2008, p. 2
- <sup>3</sup> Stewart, Allison ‘Managing with ignorance: the new ideal’ in Matthias Gross & Linsey McGoey (eds.) ‘Routledge International Handbook of Ignorance Studies’, Routledge, Abingdon, Oxford 2015, p. 373
- <sup>4</sup> Israilides, John; Lock, Russell & Cooke, Louise ‘Ignorance management’ Management Dynamics in the Knowledge Economy Volume 1 (2013) no. 1, pp. 71-85; ISSN: 2286-2668 p. 82  
<http://www.managementdynamics.ro/index.php/journal/article/view/4>
- <sup>5</sup> Zack, Michael H. ‘Managing Organizational Ignorance’ *Knowledge Directions*, Volume 1, Summer, 1999, pp. 36-49 <http://web.cba.neu.edu/~mzack/articles/orgig/orgig.htm> NB This may not be the first statement of the issue.
- <sup>6</sup> Based on Somin, Ilya ‘Rational ignorance’ in Gross & McGoey (eds.)
- <sup>7</sup> *ibid* p. 274
- <sup>8</sup> Behr, Rafael ‘While Labour complains, the Tories simply govern’, Guardian 24/8/16  
<https://www.theguardian.com/commentisfree/2016/aug/24/labour-complains-tories-govern>
- <sup>9</sup> Discussion in Schultz, David. American Politics in the Age of Ignorance: Why Lawmakers Choose Belief over Research. New York: Palgrave Macmillan, 2013. DOI: 10.1057/9781137308733. (p. 10, Kindle edition)
- <sup>10</sup> *ibid* p. 368
- <sup>11</sup> Proctor, Robert N. ‘Preface’ in Robert N. Proctor and Londa Schiebinger (eds.) ‘Agnotology - the making and unmaking of ignorance’, Stanford University Press, Stanford, 2008
- <sup>12</sup> Den Haan, Wouter *et al* <http://blogs.lse.ac.uk/europpblog/2016/08/10/brexit-and-the-economy-are-economists-out-of-touch-with-voters-and-politicians/>

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<sup>13</sup> Lacasse, François. *Mythes, savoirs et décisions politiques (Sociologies) (French Edition)* (Kindle Locations 4228-4233). Presses universitaires de France (réédition numérique FeniXX). Kindle Edition. [Original edition 1995]

<sup>14</sup> Tetlock, Philip E. *Expert Political Judgment*, Princeton University Press, 1996

<sup>15</sup> The “284 participants...were highly educated (the majority had doctorates and almost all had postgraduate training in fields such as political science (in particular, international relations and various branches of area studies), economics, international law and diplomacy, business administration, public policy, and journalism); they had, on average, twelve years of relevant work experience; they came from many walks of professional life, including academia, think tanks, government service, and international institutions...” *ibid*, p. 44. In other words, a similar profile to the specialists employed (or external specialists contracted) by parliamentary research services.

<sup>16</sup> As expressed in humorous style by a reviewer - Menand, Louis ‘Everybody’s an Expert’

<http://www.newyorker.com/magazine/2005/12/05/everybodys-an-expert>

<sup>17</sup> Tetlock, Philip E. *Expert Political Judgment* (p. 72). Princeton University Press. Kindle Edition.

<sup>18</sup> For risks in using experts see also Tilcsik, András & Almandoz, Juan <https://hbr.org/2016/08/when-having-too-many-experts-on-the-board-backfires>. Research into the US local banking industry showed that banks facing situations of heightened uncertainty *which had a higher than average ratio of industry experts on the board were more likely to fail*. The explanation offered: “three factors that can compromise the effectiveness of expert-dominated boards...The first factor is what psychologists call “cognitive entrenchment.” As we gain deeper expertise in an area, we acquire more accurate and detailed knowledge but also become less flexible in our thinking and less likely to change our perspective...Indeed, related research shows that executive teams made up of many industry experts are less flexible in responding to changes in the competitive environment... The second factor is overconfidence, a common problem in expert judgment that affects experts in a wide range of fields, from doctors and physicists to economists and CIA analysts....The third factor has to do with the level of “task conflict”—the extent to which board members have different viewpoints, ideas, and opinions about the decisions they face...research suggests that a high proportion of domain experts can suppress task conflict because non-expert directors may defer too much to the judgment of experts.”

<sup>19</sup> See e.g. Sipamba, Elsie ‘Assessment of the Levels of Knowledge, Skills and Abilities Held by Parliamentarians and the Determination of Training and Professional Development Needs—The Zambian Case’ *Parliamentary Affairs* (2012) 65, 608–627 doi:10.1093/pa/gss028

<sup>20</sup> Rozzoli, Kevin ‘Assisting Parliamentarians to Develop Their Capacities: Experiences from Working in Indonesia and the South Pacific’ *Parliamentary Affairs* (2012) 65, 628–639 doi:10.1093/pa/gss027

<sup>21</sup> *ibid* p. 629

<sup>22</sup> *ibid* p. 630

<sup>23</sup> O’Brien, Mitchell, Stapenhurst, Rick & Brooke, Prater ‘World Bank Institute’s Approach to Parliamentary Capacity Strengthening’ *Parliamentary Affairs* (2012) 65, 593–607 doi:10.1093/pa/gss022 p. 595

<sup>24</sup> On induction “many courses run by parliaments concentrate on matters directly affecting parliamentary administration, practice and procedure, structure of bills, reporting debates, committees, chamber services, library and research functions, salaries, remunerations and emoluments. There is much more to being an effective member than can be gleaned from this information...what is presented amounts to information overload. Much is forgotten within days. Induction programmes take members on a practical and emotional rollercoaster. While the programme may be clear to the presenters it makes little impact on members...Research underscores the need for continuing education once members have become settled, but they get caught up in the many aspects of their role and, with heavy demands on their time, find it difficult to contemplate further programmes even if on offer. Parliaments also distribute copious material in the expectation that members will use it later, but research reveals this material sits on the shelf unread...information from inductions or fact sheets does not readily lead to acquired knowledge. If the education process goes is not on-going, the investment in undertaking initial programmes is lost.” Rozzoli *op. cit.* pp. 633-4

<sup>25</sup> Hatemi, Peter K. & McDermott, Rose ‘Give me attitudes’, *Annual Review of Political Science*, 2016, vol. 19 pp. 331-50

<sup>26</sup> *ibid* pp 341-2

<sup>27</sup> Professional, neutral expert support to US Congress committees has been reduced in recent decades and it is claimed that input from (often young and short-stay) policy staff of Members, and from lobbyists, has supplanted it: Drutman, Lee & Teles, Steven <http://www.theatlantic.com/politics/archive/2015/03/when-congress-cant-think-for-itself-it-turns-to-lobbyists/387295/>

<sup>28</sup> Proctor *op. cit.*

<sup>29</sup> This is discussed using the BBC’s approach to balance as an example, but could be applied to any institution required to be impartial - Poole, Steve ‘How we let the phoneys take control and debase the language of politics’ *The Observer* 14/8/16. <http://www.theguardian.com/politics/2016/aug/13/political-lies-donald-trump-post-truth-politics>

<sup>30</sup> Hess, David J. ‘Undone science and social movements: a review and typology’ in Gross & McGoey (eds.) p. 149

<sup>31</sup> Ogien, Albert ‘Doubt, ignorance and trust: on the unwarranted fears raised by the doubt-mongers’ in Gross & McGoey (eds.)

<sup>32</sup> One commentator contrasted the Brexit campaign - and its many accusations of inaccurate content on both sides - with a New Zealand referendum in which the agency managing the process had published up-front a wide range of explanatory materials and, presumably because of its degree of public trust and the quality of the materials issued, it succeeded in keeping the subsequent debate within some factual limits. Renwick, Alan; Flinders, Matthew & Jennings, Will

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<http://blogs.lse.ac.uk/euoppblog/2016/08/19/the-uks-referendum-and-post-fact-politics-how-can-campaigners-be-held-accountable-for-their-claims/> “The extensive materials the New Zealand Electoral Commission produced for that country’s 2011 Referendum on the voting system, for example, included detailed explanations of each option, statements of the criteria against which the options might be evaluated, and analyses of how the options perform against these criteria. In what was (it should be acknowledged) a much less intense or politicised campaign than the current one, journalists frequently relied heavily on the Commission’s guide as a basis for their reporting.”

<sup>33</sup> Lacasse op. cit. (Kindle Locations 4149-4151).

<sup>34</sup> Schultz op. cit. p. 13

<sup>35</sup> *ibid* p. 113

<sup>36</sup> Sarewitz, Daniel ‘The pressure to publish pushes down quality’ *Nature*, 12/05/16, Vol. 533 p. 147

<sup>37</sup> As heard at a recent presentation on the work of a parliamentary knowledge service

<sup>38</sup> For example, a left perspective on this ‘crisis in western politics’ was recently put forward by Martin Jacques: <https://www.theguardian.com/commentisfree/2016/aug/21/death-of-neoliberalism-crisis-in-western-politics>

<sup>39</sup> Viner, Katharine <https://www.theguardian.com/media/2016/jul/12/how-technology-disrupted-the-truth>

<sup>40</sup> Viner, op. cit.

<sup>41</sup> Pomerantsev, Peter <https://granta.com/why-were-post-fact/> *Granta*, 20/07/16

<sup>42</sup> Pomerantsev op. cit.

<sup>43</sup> Fukuyama, Francis ‘American Political Decay or Renewal?’ *Foreign Affairs*. Jul/Aug 2016, Vol. 95 Issue 4, p. 68

<sup>44</sup> Rappert, Brian & Balmer, Brian ‘Ignorance is strength? Intelligence, security and national secrets’ in Gross & McGoey (eds.) pp. 330-31