

Promoting narrative CVs to improve research evaluation?
A review of opinion pieces and experiments

Frédérique Bordignon^{1,2}

¹ Ecole des Ponts, 77455 Marne-la-Vallée, France

² LISIS, INRAE, Univ Gustave Eiffel, CNRS, 77455 Marne-la-Vallée, France
(frederique.bordignon@enpc.fr)

0000-0002-4918-9137

Lauranne Chaignon

Université PSL, 75006 Paris, France

0000-0003-4055-8431

Daniel Egret

Université PSL, 75006 Paris, France

0000-0003-1605-7047

Promoting narrative CVs to improve research evaluation? A review of opinion pieces and experiments

Abstract

As the academic community has become increasingly concerned about the drifts of research evaluation, mostly researchers' evaluation, because of the overreliance on metrics, many expert groups have made recommendations to improve the way researchers should be evaluated. In this study, we focus on the recommendation to use narrative CVs. We review 28 opinion pieces and 7 experiments to better understand what a narrative CV can refer to, and to explore whether the narrative function that is specific to this kind of CV is proving effective in response to the concerns raised by evaluation practices. A close reading of these documents reveals the conceptual basis of the narrative CV and the problems it is intended to solve; we propose 5 commonly reported features of the narrative CV: avoid lists, contextualise achievements, fight metrics, enlarge the spectrum of contributions taken into consideration and foster diversity and inclusion. But the promoters of the narrative CV pay little to investigate how the narrative feature itself can lead to any benefits. However, the feedback collected from both applicants and evaluators is quite positive. Regardless of whether it is justified or not, the enthusiasm aroused by the implementation of this new type of CV undeniably has the advantage of opening up the debate, raising awareness and calling to question the bad practices and biases that exist in the researchers' assessment processes. The narrative nature of the CV is, in the end, just a pretext for raising interest and working towards the adoption of good practices.

Keywords: research evaluation, researcher assessment, responsible research assessment, narrative CV

1 Introduction

For over a decade, the academic community has become increasingly concerned about the drifts of research evaluation, mostly researchers' evaluation, because bibliometric indicators are overemphasized while research societal impact is not considered enough. Some important developments have drawn attention to the need to improve the current system for assessing researchers' achievements. The San Francisco Declaration on Research Assessment (DORA members 2013) is the most important. The researchers who launched it criticized the increasing use of metrics for the evaluation of scientific research outputs, in particular the misuse of the impact factor. A few years later, the Leiden Manifesto followed the same line and stated that evaluation is "increasingly driven by data and not by expert judgement" (Hicks *et al.* 2015). In the same year, the report "The Metric Tide" (Wilsdon *et al.* 2015) produced by a group of independent experts had an international resonance, although it was initiated in a UK context. The report raises concerns "that some quantitative indicators can be gamed" and called for the use of responsible metrics.

These same initiatives and many others have made recommendations to improve the way researchers should be evaluated. Recently, following the Open Science European Conference 2022, the Paris Call on Research assessment¹ and the subsequent agreement for reforming research assessment proposed by a coalition of organisations (2022), invited to reform the current system of research assessment by taking into account the full range of research outputs in all their diversity and evaluating them on their intrinsic merits and impact. In this study, we focus on the recommendation to use narrative CVs. A review of the scientific literature alone is not appropriate to provide an overview of this type of document, its use and its effectiveness, since to our knowledge there is no published research dedicated to narrative CVs. On the other hand, the recent interest of the scientific community in the narrative CV has generated many positions taken by researchers and experts in research evaluation, which can be found in opinion pieces i.e.: editorials, interviews, calls, comments, or blog posts. In addition, pilot projects have been launched by institutions and funders, and the feedback they have shared from these experiences is of great value and is included in our study. And of course, in our endeavour to understand what a narrative CV is and what role it can play in evaluation, we also draw on the scientific literature related to research evaluation to shed light on the CV as a particular type of document combined with the concept of narrativity.

The aim of this review is thus threefold:

- first, to understand what "narrative CV" can refer to,
- also, to explore whether the narrative function that makes the specificity of this kind of CV is effective, in response to the concerns raised by evaluation practices,
- and eventually to discuss new perspectives for further studies on this type of CV.

2 Methods

As we aim to consider the narrative CV as a research object and to position it with regard to related extant research, we start from the phrase *narrative CV* itself: the adjective *narrative* indicates that a narrative CV is a type of CV that presents a particular feature of narrativity. Therefore, we will first present what the scientific literature provides about the CV document and address the narrativity associated with this object. Thus, our aim is not to review the

¹ <https://osec2022.eu/paris-call/>

literature on CVs, as this would be beyond the scope of the narrative CV that we propose to investigate. We queried Scopus² (a bibliographical database) to identify research on CVs, using all possible variants to refer to them. Therefore, through a classic literature review process, we identified those that define what a CV is in terms of its function and format, as well as those whose approaches or results can be related to the concept of narrativity. Those background studies enable us to dedicate a first section to "Narrativity in CVs". We did not find any relevant document dedicated to narrative CVs, or even mentioning them.

So, we looked for knowledge on this topic in 28 opinion pieces that convey many scientists' points of view, notably through verbatims collected during interviews for newspapers or blogs. We identified them through simple queries on Google and Twitter (combining the adjective *narrative* with the different ways of referring to a CV, i.e., *curriculum/curricula vitae*, *résumé* and *CV*). Those opinion pieces mention or are calls for a reform of the researchers' evaluation system, mainly (but not only) by fighting against the misuse of metrics. While they are written and sponsored by researchers, they are not necessarily based on research but more on experience and analysis of good or bad practices. These documents then mention the narrative CV as a solution or at least a potential alternative to the traditional CV, the exploitation of which may lead to a poor evaluation. These documents are the most important providers of essential insights and knowledge and are analysed, exploited and cited in the section "How narrative CVs are presented and promoted".

Finally, these documents allowed us to identify seven real experiments, i.e., initiatives that tested the use of the narrative CV in a real situation, described it and sometimes also shared their evaluation of the experimentation after having collected feedback from both applicants and reviewers. They are organised by funders or institutions. These experiments are presented in more or less detail in a set of eleven documents mentioned in the section "Experiments with narrative CVs".

3 Narrativity in CVs

In the academic world, the Curriculum Vitae (CV) is an extremely common document that Cañibano and Bozeman (2009) describe as "a record of scientific accomplishment, a brief history of the professional life course, an obligation to administrative superiors, and a job search resource". This definition seems to be shared by most people, but some make a distinction between a *résumé* and a *curriculum vitae*, even though the two terms are sometimes used interchangeably as the difference between the two is quite subtle: a CV actually offers a complete career history while a *résumé*, in contrast, offers an annotated and abbreviated summary of the career (Haseltine 2013) and is not a biography (Lamb 1984).

While the function of CVs is commonly accepted and shared, the document itself is known to be heterogeneous and to have evolved over time.

Researchers who have relied on CV analysis for the examination of career patterns and productivity can attest to the fact that there is no standard format, e.g., the length or order of information varies, or there is inconsistency in the way different items are presented (Dietz *et al.* 2000). The CV is also seen as a self-promotional tool, serving as a "personal services advertisement" (Cañibano & Bozeman 2009) especially notable with respect to the CVs of the newcomers as they hunt for permanent positions as Macfarlane (2020) notes. He is also one of the few to position the CV within the multiple online resources and social media. Nevertheless, the literature lacks guidance on the role of the academic profiles that many online tools allow to

² <https://www.scopus.com>

generate in relation to the CV. A researcher's CV is in fact inherently linked to his/her publications. Yet, what Müller and de Rijcke (2017) call *evaluative infrastructures*, to which bibliographic databases and institutional management systems can be linked, are considered to weigh heavily on assessment principles, especially in the counting of publications and their citations (Hamann & Kaltenbrunner 2022; Macfarlane 2020).

From a morphological point of view, today's CV format is called *category-based list* by Hamann & Kaltenbrunner (2022). It appeared in the 1970s–80s and became the norm in the 21st century. It consists of a succession of lists of biographical items grouped into standardised categories to which the applicants conform. This makes it possible to arrange the items clearly, especially chronologically, and to highlight certain achievements in each category (mainly research, teaching and administration) and thus facilitate the comparison of candidates (Hamann & Kaltenbrunner 2022).

It is in opposition to this list form CV that the concept of narrative CV seems to have been developed in recent years, while continuing to be an evaluation tool. But Hamann & Kaltenbrunner remind us through their longitudinal study of CV practices in German humanities, that this is definitely not a completely new format but rather a return to the typical format of the 1950s–1960s when CVs “present academic biographies as a continuous running text that is predominantly told from a first-person perspective and that selectively touches on a number of recurring narrative elements”. Their study is therefore of great importance in that it provides an analysis of the use of the narrative CV in real life, revealing its advantages and disadvantages. This reminder that the use of narrative CVs has been established for more than 80 years, offers us a basis of comparison for revisiting the current concept.

From Hamann & Kaltenbrunner's work, we learn that the narrative CV of the 1950s–1960s German scholars portrays a candidate as a comprehensive person beyond their professional academic profile, mixing elements of private life with professional life. This CV is considered as a coherent and chronological whole. The narrative format logically allows to explain intellectual choices in more detail and to emphasise certain research interests, including differentiating important publications from others, and even to express the scholar's intellectual heritage, (e.g., the heritages of the thesis supervisor). Therefore, the CV incorporates both the human and social capital of the individual (Dietz *et al.* 2000; Macfarlane 2020). We will see further on, that the promoters of the narrative CV foresee in it the opportunity for the candidate to highlight his or her achievements beyond research outputs by also drawing attention to related activities that may have a positive societal impact. Therefore, we think that the narrative CV appears to be the ideal form of presentation of a scientific persona. Indeed, in the context of the history of science, according to Herman (2014), scholarly personae (*persona* is the Latin word for *mask*) are cultural identities that are characterized by “different constellations of virtues and skills, or more precisely by different constellations of commitments to goods (epistemic, moral, political, and so forth) the pursuit of which requires the exercise of certain virtues and skills”. Cambon (2021) explains that the concept of scientific personae, has undergone a change in meaning and that, beyond the presentation of all the achievements made by a researcher in order to adopt a public role, the concept also covers the widely shared views on what is required to be a scientist. And we think this is likely to influence candidates when they prepare their CV, insofar as they might be tempted to present their past achievements in such a way that they embody their potential future performance to perfectly fit the scientific persona representation. Boudès *et al* (2009) see also the CV as the inside–out story, i.e., the account that an individual gives of his or her life to others, as opposed to the inside story (intimate experiences) and the outside story (the events that actually occurred). They analyse a corpus of “traditional” CVs and propose to determine the level

of narrativity of each CV based on six formal properties that usually determine what constitutes a narrative: periodisation (a marked beginning and end), a hero, a quest, a logic of progression, achievements and a moral. They conclude that the best CVs also have superior narrative qualities, as storytelling constitutes an easy way to create meaning and consistency.

Regarding CVs in list form, Boudès *et al* (2009), and also Hamann & Kaltenbrunner (2022) consider that lists have to be transformed back into narratives and that “the narrative agency rests with the evaluators”. In their analysis of referee reports (produced to legitimize hiring decisions in Swedish academia), Hammarfelt *et al* (2020) show how the evaluators construct the 'career trajectories' by retrieving disparate pieces of information from the candidates' CVs and transforming them in comparable entities. Thus, the use of CVs in the assessment process entails a trajectorial interpretation (Kaltenbrunner *et al*. 2021; Kaltenbrunner & de Rijcke 2019), where evaluators have to contextualise the elements presented in the lists, relying on their own experience and epistemic culture, and make meaningful comparisons between candidates.

4 How narrative CVs are presented and promoted

We identified 28 opinion pieces through queries in Google and Twitter. Those documents mention scientists' point of view, including verbatims collected during interviews for newspapers or blogs. Table 1 helps characterize the main actors promoting narrative CVs. We identified seven groups of actors whose views and statements are presented in five different types of papers; this information is presented in Table 1 together with the reference of each paper.

Actors	Document type	#	References
Advocacy coalitions	Blog posts	3	(DORA funder discussion group 2022; Metistalk 2022; Spinal Cord Research Hub 2022)
	News, communication, events	1	(UK Reproducibility Network 2021)
	Commitments, policies, rationales	1	(Dementia Researcher 2022)
	Reports, case studies, surveys	1	(Curry <i>et al.</i> 2022)
	Recommendations, principles, guidelines	1	(Science Europe 2020)
Media	Blog posts	3	(Brown <i>et al.</i> 2022; Cruz & de Jonge 2020; Gadd 2022)
	News, communication, events	3	(Grove 2021a, 2021b; de Oliveira Andrade 2022)
Universities, university coalitions	News, communication, events	1	(LERU 2022)
	Commitments, policies, rationales	3	(Eindhoven University of Technology 2022; University of Bristol 2021; VSNU <i>et al.</i> 2019)
Researchers, scientific collaborators, research managers	Blog posts	1	(Donald 2020)
	News, communication, events	3	(Chawla 2022; Lacchia 2021; Woolston 2022)
Funders, funder coalitions	Commitments, policies, rationales	3	(NWO 2019; Research Luxembourg 2021; UK Research and Innovation 2021)
Learned Societies and Research Organizations	Blog posts	1	(The Royal Society 2019a)
	Recommendations, principles, guidelines	1	(The Royal Society 2019b)
Governmental, inter-governmental or European sources	Reports, case studies, surveys	2	(Directorate-General for Research and Innovation (European Commission) 2021; UK Department for Business, Energy and Industrial Strategy 2021)
Total		28	

Table 1. We have grouped the 28 identified opinion pieces into seven categories of actors. The Table gives for each group, its category, the document types, the number of documents, and references

A close reading of these papers reveals the conceptual basis of the narrative CV and the problems it is intended to solve. We present them in the following paragraphs by proposing 5 commonly reported features of the narrative CV:

- against the misuse of metrics
- against lists
- against a narrow definition of impact and in favour of a broader range of research contributions
- in favour of contextualization and selection
- in favour of inclusivity and diversification.

4.1 Against the misuse of metrics

Very often, the promoters of the narrative CV see it as a way of fighting against the overreliance on metrics, and first and foremost against the misuse or abuse of the journal impact factor (Directorate-General for Research and Innovation (European Commission) 2021; Gadd 2022; VSNU *et al.* 2019; Woolston 2022). The aim here is clearly to echo DORA (2013), the Declaration On Research Assessment recognizing the need to improve the ways in which the outputs of scholarly research are evaluated. Indeed, bibliometric indicators are criticised for favouring quantity over quality and increasing the pressure on researchers to publish in high-impact journals whose value is inflated while other publication venues would have a greater societal impact (Alberts *et al.* 2014; Benedictus *et al.* 2016).

4.2 Against lists

The narrative CV is sometimes presented in opposition to the list CV, which is considered to be the traditional form, ignoring the former narrative format of the 1950s–60s CVs. The list CV is therefore criticised for favouring 'shortcuts' (Curry *et al.* 2022; Gadd 2022) by taking advantage of the practical overview that lists offer but which results in 'favouring snap judgements over in-depth evaluation' (Brown *et al.* 2022; Strinzel *et al.* 2021), and disadvantaging for example, researchers whose careers have been interrupted and whose 'gaps' appear without any further explanation in the CV. Going "beyond the lists" with a narrative format enables a description not only of what was done but also of resulting achievements (Metistalk 2022).

4.3 Against a narrow definition of impact and in favour of a broader range of research contributions

For the majority of the narrative CV advocates, its main asset is to broaden the range of contributions that researchers get recognition for, i.e. by going beyond research outputs and taking into account activities related to the research activity (i.e.: scholarly activity that does not result in publications), "real-world contributions" like projects that help local communities, outreach, work on committees, collaborating behind the scenes on big projects, teaching and supervision (Gadd 2022; Lacchia 2021; Woolston 2022).

4.4 In favour of contextualisation and selection

While fighting against simplistic metrics and broadening the array of accounted contributions, many see the narrative CV as a way to contextualise achievements (Strinzel *et al.* 2021) providing "a much richer, more nuanced picture of an individual scholar's contribution" (Gadd 2022) and to recognise and take into account discipline specificities, academic age and also personal circumstances.

Other stakeholders call for a selection of the most meaningful publications, rather than listing them all. This allows reviewers to have time to read them, makes it easier to compare early- and late-career researchers and makes career breaks less apparent (Curry *et al.* 2022; Strinzel *et al.* 2021; Woolston 2022).

4.5 In favour of inclusivity and diversification

The public knowledge institutions and funders of research who have implemented the narrative CV, see this format (and the contextualisation of achievements it enables) as a way of encouraging inclusivity by opening up to the diversification of career paths (Lacchia 2021) encouraged by the diversification of the criteria according to which research projects and careers are assessed (Gadd 2022; Grove 2021a). Metrics are then seen as a barrier to diversity, equity and inclusion. The opportunity to showcase mentorship, outreach and committee duties works in favour of women, people from minority ethnic groups and other under-represented demographics as these are areas where they excel (Asaolu 2020; Bhalla 2019).

5 Experiments with narrative CVs

Through reading the opinion pieces, we could identify real experiments, i.e. initiatives that tested the use of the narrative CV in a real situation, described it and sometimes also shared their evaluation of the experimentation after having collected feedback from both applicants and reviewers. Table 2 shows the 7 experiments on which we have relied and who led them.

Year	Actor	Type of actor	Description
2015	US National Institutes of Health (NIH) and National Science Foundation (NSF)	Funders, funder coalitions	Modification of the biosketch format in grant application forms
2018	Dutch Research Council (NWO)	Funders, funder coalitions	Introduction of the narrative CV in the Veni scheme (funding for Early-Career Researchers)
2019	Science Foundation Ireland (SFI)	Funders, funder coalitions	Introduction of the narrative CV for all funding calls
2020	Swiss National Science Foundation (SNSF)	Funders, funder coalitions	Test of the SciCV format
2021	Luxembourg National Research Fund (FNR)	Funders, funder coalitions	Introduction of a narrative CV template for PIs (Principal Investigators) and Co-PIs requesting funding from all programs
2021	UK Research and Innovation (UKRI) and Joint Funders Group (JFG)	Funders, funder coalitions	Introduction of a narrative CV for all funding applications
2021	University of Glasgow	Universities, university coalitions	Project with 8 early career researchers (ECRs) and a mock review panel to pilot a narrative CV format

Table 2. Recent actual experiments with narrative CVs considered in this section.

The earliest of these experiments was conducted in 2015 by the NIH and the NSF in the US, which, while not mentioning narrative CVs (the term probably not being in common parlance yet in academic context), called for the inclusion of narrative elements in CVs used for NIH and NSF grants (Rockey 2014). In 2018, the Dutch Research Council (NWO) piloted a narrative CV format in the Veni scheme dedicated to funding Early-Career Researchers (Gossink-Melenhorst 2019).

It was under the leadership of the Royal Society that pilot experiments multiplied, following the publication of the *Résumé for Researchers (R4R)* “intended to be a flexible tool that can be adapted to a range of different processes that require a summative evaluation of a researcher, recognising that their relative importance will be context-specific.” (The Royal Society 2019a). The R4R template highlights past performance inviting the candidate to present himself/herself by answering 4 questions, also called modules:

- Module 1. How have you contributed to the generation of knowledge?
- Module 2. How have you contributed to the development of individuals?
- Module 3. How have you contributed to the wider research community?
- Module 4. How have you contributed to broader society?

It is mainly funding bodies that develop the process but also employers as universities (Adams *et al.* 2021; Meadmore *et al.* 2022). They take over the template and often adapt it to their needs. They also describe their experimentation and also share the evaluation they carried out.

To learn from these experiments and further develop the analysis we initiated with the study of opinion pieces, it is necessary to consider again each of the five main features generally used to promote narrative CVs i.e.: avoid lists, contextualise achievements, fight metrics, enlarge the

spectrum of contributions taken into consideration and foster diversity and inclusion. These experiments are important and the feedback shared by the institutions that conducted them is valuable as it allows us to go beyond the (sometimes promissory) discourse and access the practical application.

5.1 Avoid lists

From a morphological point of view, it appears that the use of lists is not completely rejected. The Swiss National Science Foundation has indeed designed a template “neither as a list-based nor a purely free-text-based CV, but instead aimed at combining the best of both worlds” (Strinzel *et al.* 2022). The University of Glasgow also advocates a “hybrid CV” (Adams *et al.* 2021; Adams & Casci 2021) which appears to be the preferred format for respondents over an entirely narrative-based CV.

5.2 Contextualise achievements

For all projects, the overall principle remains to provide key outputs and to put them into context, with an instruction to use a maximum number of words (Joint Funders Group 2022; Strinzel *et al.* 2022), or of cited publications or research achievements (DORA members 2020).

But the omission of the full publication list was ambivalently received by both applicants and reviewers (FNR 2022; Strinzel *et al.* 2022). There are concerns that not listing the full list of publications provides an incomplete profile of the candidate and that reviewers also lack evidence to verify what is claimed in the narratives. Nevertheless, the interviews conducted by the Swiss National Science Foundation (SNSF) with the reviewers show that “they appreciated the contextualising aspect of narratives for their evaluation, as they provide an overview of scientific careers and connections that are not discernible from publication lists only.” (Strinzel *et al.* 2022).

5.3 Fight metrics

As for metrics, there is no complete or generalised ban here either, but restricted and contextualised use. The University of Glasgow, for example, accepts contextualised citation data. Although the NWO (Gossink-Melenhorst 2019) has banned the use of the h-index or the impact factor, it has nevertheless authorised the use of metrics for key outputs only, provided that it is specified why this indicator is interesting. For the SNSF SciCV, as the platform is connected to the Dimensions bibliographic database, the Relative Citation Ratio is automatically retrieved to populate the CV and the h-index is added according to the Scopus database calculation (Strinzel *et al.* 2022). These two metrics have not been perceived with great enthusiasm but, according to the SNSF survey, they are still considered useful by candidates and reviewers. But in any case, even if these metrics were simply forbidden, reviewers can easily retrieve them online (DORA members 2020; FNR 2022), and it is even simpler as the SciCV infrastructure hosting the CV is directly connected to the candidate's ORCID number.

5.4 Enlarge the spectrum of contributions and foster diversity and inclusion

In terms of broadening the range of contributions taken into account and fostering diversity and inclusion, although these objectives are clearly stated for all the pilot projects we identified, it would appear that the impact of the narrative CV on these aspects has not been assessed. This is not to say that there is no impact. The University of Glasgow (2021) notes that both CV writers and panel members see the narrative CV as an “opportunity” to highlight a variety of contributions and thus increase the diversity of the research community. In the analysis they published, the NIHR (Meadmore *et al.* 2022) also speaks of the potential contributions of the narrative CV to wider research culture. In general, on these latter points, the narrative CV is cautiously presented as potentially facilitating positive changes and in any case its impact needs to be assessed.

As for the narrative dimension, as in the opinion pieces, it is not much commented on as it is not really assessed. However, the SNSF (Strinzel *et al.* 2022) was able to see from the preliminary results of a comparative analysis of the texts that there were no major differences between male and female candidates (however, this needs to be confirmed by further studies as the dataset they used was not substantial enough). But there is still a concern that native speakers have an advantage in the presentation of their CVs (Fritch *et al.* 2021). On the other hand, a comment that is often made in the feedback can be linked to the narrative format, indicating that the workload for writing a narrative CV as well as for evaluating it is clearly very high (FNR 2022; Fritch *et al.* 2021). The NWO (Gossink-Melenhorst 2019) acknowledges a “more complicated job” due to the difficulty of comparing narratives with each other, rather than with numbers of publications. These findings should be taken seriously, as they can have the opposite effect to that intended: it might lead some reviewers to resort to shortcuts when assessing applicants (or not engaging with the CV format at all).

In short, the conclusion of the FNR survey (FNR 2022) best captures the picture: “While not an overwhelmingly positive result, this signifies general acceptance with the change, with only a minority seeing the shift as problematic.”

6 Discussion and perspectives

The term *narrative CV* refers to a particular type of CVs whose expected distinctive feature is to tell a story i.e., to give an account of connected events. But we have seen that the traditional list format CV, to which it is often opposed, can also have a narrative function and convey a story (Boudès *et al.* 2009), with elements presented in the lists being contextualised and transformed into narratives by evaluators (Hamann and Kaltenbrunner, 2022; Hammarfelt *et al.* 2020; Kaltenbrunner *et al.* 2021; Kaltenbrunner & de Rijcke 2019). They stated that throughout the evolution of CVs, the narrative agency shifts from the candidates to the evaluators; we suggest that asking candidates to provide a narrative CV is a way to shift the narrative agency back to them and thus to put them in control of their scientific personae. They can indeed keep control of their story (the inside-out story) and provide the explanation of their career path, leaving little (or at least less) room for interpretation by the evaluators.

This new term refers to a new type of CV that actually borrows its morphological properties from older forms of CV, both the text-based CV of the 1950s-60s and the résumé, the concept of which in itself already addresses the need to contextualise and select the most valuable

experiences. We can also mention the "analytical CV"³ required in France to become an assistant professor and where the candidate has to provide an analytical and descriptive presentation of their academic background.

But it is fair to say that coining this new term effectively contributes to drawing the attention to the CV, a document that is, after all, very common and that needs to be transformed. This is very representative in Woolston's article for Nature (2022), which alternately speaks of *rethinking*, *revamping*, *reworking* the academic CV and talks about a *résumé revolution* and a *new era of CVs*.

But narrative CVs are not just a buzzword, since institutions, funders and advocates are using them to emphasise the content expected in this type of CV, leaving aside the format and narrativity. The standard questions for the 4 sections of the *Résumé for Researchers* (for which we note the use of the word *résumé* and not CV) provide guidance to candidates, but they are above all a means of sensitising the evaluators to go beyond the metrics. The advocates do the rest by conveying positive self-fulfilling prophecies in the opinion pieces. Indeed, while there is not yet evidence that the texts produced by candidates in narrative CVs contribute directly to improving the recruitment process, by taking into account a broader spectrum of contributions or by developing diversity, the very fact of requiring this type of CV in the recruitment process is likely to act on reviewers to modify their behaviour. This is reinforced by the fact that the use of narrative CVs is accompanied by guidelines for evaluators and awareness campaigns for responsible research assessment.

The experiments carried out do not show an improvement in the quality of the assessment but rather the satisfaction of applicants (especially among the early-career researchers (Strinzel *et al.* 2022)) and evaluators, which is a promising element for the future. But comparative studies need to be launched, with the same candidates assessed on the basis of their traditional CVs and their narrative CVs by similar panels whose results are then compared, in particular their evaluation of each candidate. Longer-term studies are also needed to measure changes in behaviour and practices over the long term, which is the ultimate goal.

The role of the narration in the CVs should also be studied by proposing linguistic studies of the discourse and the lexical language used (boastful or not), in order to measure the biases linked to gender and the candidate's mother tongue, for example. Here again, it would be necessary to measure the persuasive power of the narrative format compared to the list format on the reviewers, particularly on their perception of the candidates through the way they express themselves. It would be interesting to include cover letters in these studies to see if they do not take on some of the functions of the narrative CV, such as the possibility of contextualising the various achievements of the candidate.

Lastly, in order to increase acceptance while avoiding the pitfall of additional work in the writing of a narrative CV, the scientific community needs to reflect on its embedding within online tools (evaluative infrastructures according to Müller & de Rijcke (2017)), linked to the ORCID in particular (facilitating the integration with scholarly outputs), but also to alternative metrics (to highlight possible citations in the news media or policy documents, for example) or to what Natural Language Processing offers for matching scientific publications and Sustainable Development Goals (Rafols *et al.* 2021).

³ Arrêté du 7 octobre 2009 relatif aux modalités générales des opérations de mutation, de détachement et de recrutement par concours des maîtres de conférences.
<https://www.legifrance.gouv.fr/loda/id/JORFTEXT000021158708>

7 Conclusion

We have shown that the narrative CV has been well received by the scientific community and that the very fact of rethinking the CV format has aroused interest, even enthusiasm, with many supportive statements in the specialised press or blogs, and that some institutions have undertaken to test it in a real situation. What is striking is that the promoters of the narrative CV are keen to highlight the benefits of this new format, but they pay little or no attention to investigate how the narrative feature itself, typically the use of longer sentences describing contextualised events and achievements, can lead to any benefits. This would require textual analysis of narrative CV corpora and sociolinguistic interpretation to understand how the texts are produced by the candidates, how they are perceived by the reviewers and to what extent they improve the evaluation process, as experienced by those who participated in pilot projects. However, the feedback collected from both applicants and evaluators is quite positive. Regardless of whether it is justified or not, the enthusiasm aroused by the implementation of this new type of CV undeniably has the advantage of opening up the debate, raising awareness and calling assessors (and the candidates themselves, potential future assessors) to question the bad practices and biases that exist in the researchers' assessment processes. The narrative nature of the CV is, in the end, just a pretext for raising interest and working towards the adoption of good practices.

But already, while we were still undertaking our study, we began to notice a change in terminology and some actors are now abandoning the adjective *narrative* and proposing new expressions: Kaltenbrunner (according to Woolston (2022)) suggests the phrase "contextual CV" stating that it is more about supplementing traditional CVs with other elements; the CWTS (Centre for Science and Technology Studies at Leiden University) presents "substantiated CV" as a new focus area within the framework of a new system of recognition and rewards for academics; the NWO announces that a new version of the narrative CV called "evidence-based CV" is being prepared. These recent developments confirm both the powerful momentum underway in the reflection on the necessary changes in the form of the CV and its place in the evaluation process, but also the shift in the debate on the content, for which the narrative feature is no longer the main driver.

8 Bibliography

- Adams, E., & Casci, T. (2021). *Narrative CV: a Glasgow pilot*. University of Glasgow Lab for Academic Culture (Online Workshop). Retrieved April 22, 2022, from <<https://www.youtube.com/watch?v=dZ1g3Mlcum8>>
- Adams, E., Casci, T., Padgett, M., & Alfred, J. (2021). *Narrative CVs - University of Glasgow - Supporting applicants and review panels to value the range of contributions to research*. Retrieved March 7, 2022, from <<https://www.gla.ac.uk/myglasgow/ris/researchculture/labforacademicculture/narrativecv/s/>>
- Alberts, B., Kirschner, M. W., Tilghman, S., & Varmus, H. (2014). 'Rescuing US biomedical research from its systemic flaws', *Proceedings of the National Academy of Sciences*, 111/16: 5773-7. *Proceedings of the National Academy of Sciences*. DOI: 10.1073/pnas.1404402111
- Asaolu, O. (2020). 'We think there's a better way to assess the research of African academics: here's how'. *The Conversation*. Retrieved May 14, 2022, from <<http://theconversation.com/we-think-theres-a-better-way-to-assess-the-research-of-african-academics-heres-how-132287>>

- Benedictus, R., Miedema, F., & Ferguson, M. W. J. (2016). 'Fewer numbers, better science', *Nature*, 538/7626: 453–5. Nature Publishing Group. DOI: 10.1038/538453a
- Bhalla, N. (2019). 'Strategies to improve equity in faculty hiring', *Molecular Biology of the Cell*, 30/22: 2744–9. DOI: 10.1091/mbc.e19-08-0476
- Boudès, T., Cadin, L., & Pralong, J. (2009). 'Est-il dans l'intérêt d'un CV de "faire des histoires" ?', *Annales des Mines – Gérer et comprendre*, N° 98/4: 66–77. DOI: 10.3917/geco.098.0066
- Brown, J., Kaltenbrunner, W., Strinzel, M., de Rijcke, S., & Hill, M. (2022). 'Imperfect, boring, headed for change? 10 Ways to improve academic CV assessments'. *Impact of Social Sciences*. Retrieved April 26, 2022, from <<https://blogs.lse.ac.uk/impactofsocialsciences/2022/04/05/imperfect-boring-headed-for-change-10-ways-to-improve-academic-cv-assessments/>>
- Cambon, N. (2021). 'La notion de persona et la question des affects en histoire des sciences et des savoirs. Le cas des savoirs européens sur l'anthropophagie (1770-1800)', *Les Cahiers de Framespa. e-STORIA*, 37. DOI: 10.4000/framespa.10984
- Cañibano, C., & Bozeman, B. (2009). 'Curriculum vitae method in science policy and research evaluation: the state-of-the-art', *Research Evaluation*, 18/2: 86–94. DOI: 10.3152/095820209x441754
- Chawla, D. S. (2022). 'Swiss funder unveils new CV format to make grant evaluation fairer', *Nature*, 606: 1033–4. DOI: 10.1038/d41586-022-01599-x
- Cruz, M., & de Jonge, H. (2020). 'Beyond mandates: For open science to become a norm, it must be recognised and rewarded'. *Impact of Social Sciences*. Retrieved May 17, 2022, from <<https://blogs.lse.ac.uk/impactofsocialsciences/2020/12/01/beyond-mandates-for-open-science-to-become-a-norm-it-must-be-recognised-and-rewarded/>>
- Curry, S., de Rijcke, S., Hatch, A., Pillay, D. (Gansen), van der Weijden, I., & Wilsdon, J. (2022). *The changing role of funders in responsible research assessment: progress, obstacles and the way ahead (RoRI Working Paper No.3)*. Research on Research Institute. Retrieved April 27, 2022, from <https://rori.figshare.com/articles/report/The_changing_role_of_funders_in_responsible_research_assessment_progress_obstacles_and_the_way_ahead/13227914/2>. DOI: 10.6084/m9.figshare.13227914.v2
- Dementia Researcher. (2022). 'Why is Alzheimer's Research UK piloting narrative CVs?' Retrieved May 18, 2022, from <<https://www.dementiaresearcher.nihr.ac.uk/why-is-alzheimers-research-uk-piloting-narrative-cvs/>>
- Dietz, J. S., Chompalov, I., Bozeman, B., Lane, E. O., & Park, J. (2000). 'Using the Curriculum Vita to Study the Career Paths of Scientists and Engineers: An Exploratory Assessment', *Scientometrics*, 49/3: 419–42. DOI: 10.1023/a:1010537606969
- Directorate-General for Research and Innovation (European Commission). (2021). *Towards a reform of the research assessment system: scoping report*. Luxembourg: Publications Office of the European Union. Retrieved March 28, 2022, from <<https://data.europa.eu/doi/10.2777/707440>>
- Donald, A. (2020). 'A Holistic CV'. *Athene Donald's Blog*. Retrieved April 7, 2022, from <<http://occamstypewriter.org/athenedonald/2020/02/16/a-holistic-cv/>>
- DORA funder discussion group. (2022). 'Changing the narrative: considering common principles for the use of narrative CVs in grant evaluation'. *DORA*. Retrieved June 27, 2022, from <<https://sfdora.org/2022/06/06/-changing-the-narrative-considering-common-principles-for-the-use-of-narrative-cvs-in-grant-evaluation/>>
- DORA members. (2013). 'San Francisco Declaration on Research Assessment'. *DORA*. Retrieved March 15, 2021, from <<https://sfdora.org/>>
- . (2020). 'Science Foundation Ireland takes an iterative approach to develop a narrative CV'.

- DORA. Retrieved May 17, 2022, from <<https://sfdora.org/2020/11/19/dora-funder-discussion-science-foundation-ireland-takes-an-iterative-approach-to-develop-a-narrative-cv/>>
- Eindhoven University of Technology. (2022). “The default is no longer solely research”. Retrieved May 7, 2022, from <<https://www.tue.nl/en/storage/wiskunde-en-informatica/de-faculteit/news-and-events/news-overview/07-04-2022-the-default-is-no-longer-solely-research/>>
- FNR. (2022). ‘Narrative CV: Implementation and feedback results’. *FNR – Luxembourg National Research Fund*. Retrieved March 8, 2022, from <<https://www.fnr.lu/narrative-cv-implementation-and-feedback-results/>>
- Fritch, R., Hatch, A., Hazlett, H., & Vinkenbunrg, C. (2021). *Using Narrative CVs: Process Optimization and bias mitigation*. Zenodo. Retrieved March 29, 2022, from <<https://zenodo.org/record/5799414>>. DOI: 10.5281/zenodo.5799414
- Gadd, E. (2022). ‘A Narrative CV for Universities?’. *Impact of Social Sciences*. Retrieved March 7, 2022, from <<https://blogs.lse.ac.uk/impactofsocialsciences/2022/01/31/a-narrative-cv-for-universities/>>
- Gossink-Melenhorst, K. (2019). ‘Quality over quantity: How the Dutch Research Council is giving researchers the opportunity to showcase diverse types of talent’. *DORA*. Retrieved April 17, 2022, from <<https://sfdora.org/2019/11/14/quality-over-quantity-how-the-dutch-research-council-is-giving-researchers-the-opportunity-to-showcase-diverse-types-of-talent/>>
- Grove, J. (2021a). ‘Do narrative CVs tell the right story?’. *Times Higher Education (THE)*.
- (2021b). ‘Research intelligence: how to write a compelling narrative CV’. *Times Higher Education (THE)*.
- Hamann, J., & Kaltenbrunner, W. (2022). ‘Biographical representation, from narrative to list: The evolution of curricula vitae in the humanities, 1950 to 2010’, *Research Evaluation*, rvab040. DOI: 10.1093/reseval/rvab040
- Hammarfelt, B., Rushforth, A. D., & De Rijcke, S. (2020). ‘Temporality in Academic Evaluation’, *Valuation Studies*, 7/1: 33. DOI: 10.3384/VS.2001-5992.2020.7.1.33
- Haseltine, D. (2013). ‘Job-search basics: how to convert a CV into a resume’, *Nature Immunology*, 14/1: 6–9. DOI: 10.1038/ni.2453
- Herman, P. (2014). ‘What Is a Scholarly Persona? Ten Theses on Virtues, Skills, and Desires’, *History and Theory*, 53/3: 348–71. DOI: 10.1111/hith.10717
- Hicks, D., Wouters, P., Waltman, L., De Rijcke, S., & Rafols, I. (2015). ‘Bibliometrics: The Leiden Manifesto for research metrics’, *Nature*, 520/7548: 429–31. DOI: 10.1038/520429a
- Joint Funders Group. (2022). ‘Résumé for Researchers-like Narrative CV: Template Synthesis’.. Zenodo. DOI: 10.5281/zenodo.6394850
- Kaltenbrunner, W., Rijcke, S. de, Müller, R., & Burner-Fritsch, I. (2021). ‘On the Chronopolitics of Academic CVs in Peer Review’. Vostal F. (ed.) *Inquiring into Academic Timescapes*, pp. 247–64. Emerald Publishing Limited. DOI: [10.1108/978-1-78973-911-420211021](https://doi.org/10.1108/978-1-78973-911-420211021)
- Kaltenbrunner, W., & de Rijcke, S. (2019). ‘Filling in the gaps: The interpretation of curricula vitae in peer review’, *Social Studies of Science*, 49/6: 863–83. SAGE Publications Ltd. DOI: 10.1177/0306312719864164
- Lacchia, A. (2021). ‘A new form of CV for researchers: Another step away from narrow, biased measures of success in science.’ *Nature Index*.
- Lamb, S. (1984). ‘The curriculum vitae and the resume: contrasts, similarities, and applications’, *Journal of Neurosurgical Nursing*, 16/2: 109–15. DOI: 10.1097/01376517-198404000-00010
- LERU. (2022). ‘Narrative, not numbers, should drive researcher assessment’. Retrieved March 7, 2022, from <<https://www.leru.org/news/narrative-not-numbers-should-drive-researcher->

assessment>

- Macfarlane, B. (2020). 'The CV as a symbol of the changing nature of academic life: performativity, prestige and self-presentation', *Studies in Higher Education*, 45/4: 796–807. DOI: 10.1080/03075079.2018.1554638
- Meadmore, K., Recio-Saucedo, A., Blatch-Jones, A., Church, H., Cross, A., Fackrell, K., Thomas, S., *et al.* (2022). 'Exploring the use of narrative CVs in the NIHR: a mixed method qualitative study', *NIHR Open Res*, 2/38: 38. F1000 Research Limited. DOI: 10.3310/nihropenres.1115193.1
- Metistalk. (2022). 'Rethinking research assessment – beyond outputs, beyond lists'. *MetisTalk*. Retrieved May 7, 2022, from <<https://www.metistalk.com/latestposts/rethinking-research-assessment-beyond-outputs-beyond-lists>>
- Müller, R., & de Rijcke, S. (2017). 'Thinking with indicators. Exploring the epistemic impacts of academic performance indicators in the life sciences', *Research Evaluation*, 26/3: 157–68. DOI: 10.1093/reseval/rvx023
- NWO. (2019). 'NWO introduces narrative CV format in the 2020 Vici round'. Retrieved April 18, 2022, from <<https://www.nwo.nl/en/news/nwo-introduces-narrative-cv-format-2020-vici-round>>
- de Oliveira Andrade, R. (2022). 'Lex Bouter: Towards more responsible science'. *Pesquisa*, 314.
- Rafols, I., Noyons, E., Confraria, H., & Ciarli, T. (2021). 'Visualising plural mappings of science for Sustainable Development Goals (SDGs)'. *STRINGS*. Retrieved July 24, 2022, from <<http://strings.org.uk/research-findings/>>
- Research Luxembourg. (2021). 'Luxembourg pioneering in narrative CV for researchers'. Retrieved April 18, 2022, from <<https://www.researchluxembourg.org/en/luxembourg-pioneering-in-narrative-cv-for-researchers/>>
- Rockey, S. (2014). 'Following Up on the Biosketch Implementation'. Retrieved March 7, 2022, from <<https://nexus.od.nih.gov/all/2014/12/09/following-up-on-the-biosketch-implementation/>>
- Science Europe. (2020). 'Position Statement and Recommendations on Research Assessment Processes'. Retrieved May 7, 2022, from <<https://doi.org/10.5281/zenodo.4916156>>
- Signatories of this Agreement. (2022). *Agreement on Reforming Research Assessment*. Retrieved July 25, 2022, from <https://www.eua.eu/downloads/news/2022_07_19_rra_agreement_final.pdf>
- Spinal Cord Research Hub. (2022). 'SCoRH Update: May 2022'. Retrieved May 22, 2022, from <<https://us5.campaign-archive.com/?u=6803b1fb49c993ab00b7d4b19&id=b9adc677d9>>
- Strinzel, M., Brown, J., Kaltenbrunner, W., de Rijcke, S., & Hill, M. (2021). 'Ten ways to improve academic CVs for fairer research assessment', *Humanities and Social Sciences Communications*, 8/1: 1–4. DOI: 10.1057/s41599-021-00929-0
- Strinzel, M., Kaltenbrunner, W., Weijden, I. van der, Arx, M. von, & Hill, M. (2022). 'SciCV, the Swiss National Science Foundation's new CV format'. *BioRxiv*. DOI: 10.1101/2022.03.16.484596
- The Royal Society. (2019a). 'Research culture: Résumé for Researchers'. Retrieved April 21, 2022, from <<https://royalsociety.org/blog/2019/10/research-culture/>>
- . (2019b). 'Résumé for Researchers'. Retrieved March 7, 2022, from <<https://royalsociety.org/topics-policy/projects/research-culture/tools-for-support/resume-for-researchers/>>
- UK Department for Business, Energy and Industrial Strategy. (2021). 'Research and development (R&D) people and culture strategy'. Retrieved May 17, 2022, from <<https://www.gov.uk/government/publications/research-and-development-rd-people-and-culture-strategy>>

- UK Reproducibility Network. (2021). 'An enhanced narrative CV template for the research community'. Retrieved May 17, 2022, from <<https://www.ukrn.org/2021/04/23/an-enhanced-narrative-cv-template-for-the-research-community/>>
- UK Research and Innovation. (2021). 'UKRI introduces new Resume for Research and Innovation'. Retrieved March 7, 2022, from <<https://www.ukri.org/news/ukri-launches-new-resume-for-research-and-innovation/>>
- University of Bristol. (2021). 'Résumé for Researchers: the whys and hows of narrative CVs'. University of Bristol. Retrieved March 7, 2022, from <<https://www.bristol.ac.uk/blackwell/news/2021/narrative-cvs-blog.html>>
- VSNU, NFU, KNAW, NWO, & ZonMw. (2019). 'Room for everyone's talent'. Retrieved April 17, 2022, from <<https://recognitionrewards.nl/about/position-paper/>>
- Wilsdon, J., Allen, L., Belfiore, E., Campbell, P., Curry, S., Hill, S., Jones, R., *et al.* (2015). 'The Metric Tide: Report of the Independent Review of the Role of Metrics in Research Assessment and Management'. Unpublished. DOI: 10.13140/RG.2.1.4929.1363
- Woolston, C. (2022). 'Time to rethink the scientific CV', *Nature*, 604/7904: 203–5. DOI: 10.1038/d41586-022-00928-4