

Using Narrative CVs

Process optimization
and bias mitigation



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A short report summarizing the key learnings and recommended actions from a workshop co-sponsored by the San Francisco Declaration on Research Assessment (DORA) and the Funding Organisations for Gender Equality Community of Practice (FORGEN CoP) on the adoption of narrative CVs for funding organizations

* Authors are listed in alphabetical order.



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• Participants

The workshop took place on two different occasions to accommodate global attendance, resulting in more than 120 participants from 22 countries and more than 40 funding organizations. In an informal poll of participants, one third of respondents reported their organization has adopted a narrative CV format, while approximately one third indicated that their organization is considering the adoption of one. There was some inconsistency in responses, indicating that some funding organizations may not have yet adopted the format across all funding schemes.

Background

Narrative CV formats have emerged as an attractive [alternative to the traditional CV](#) because they offer a concise, but structured way for authors to provide qualitative evidence for a broad array of outputs and outcomes from research. Funding organizations have seen their use as an opportunity to reduce the outsized influence of journal-based indicators in grant review and promote a more holistic evaluation process that recognizes societal outcomes of research in addition to the generation of knowledge. The [Dutch Research Council](#), [Health Research Board Ireland](#), [Luxembourg National Research Fund](#), the [National Institutes of Health](#) in the United States, [Science Foundation Ireland](#), the [Swiss National Science Foundation](#), and [UK Research and Innovation](#) are among the first funding organizations to pilot or implement narrative CV formats.

The term “narrative CV” suggests that storytelling is key, but the focus of the NWO CV is on substantiation and evidence, while providing flexibility.

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Kasper Gossink-Melenhorst,

THE DUTCH RESEARCH COUNCIL (NWO)

By instilling standards and structure into the evaluation process, narrative formats have the potential to encourage fair and responsible research assessment because qualitative information can then be assessed more evenly across a pool of applicants. However, as a new tool for researcher assessment, less is known about the ways in which bias influences decision making when evaluating narrative CVs for grant funding. Moreover, it is important not to replicate the drawbacks of traditional CV formats or to introduce new ones. This led DORA together with the Funding Organisations for Gender Equality Community of Practice (FORGEN CoP) to organize a workshop on September 29, 2021, to discuss the adoption of narrative CVs with a goal of exploring strategies to mitigate bias and optimize their utility.

While a shared definition of the narrative CV format still needs to be developed, it is generally understood to encompass a structured description of a researcher’s contributions and achievements that reflect a broader range of

skills and experiences beyond publications and funding record. As an example, the *Résumé for Researchers*, a narrative CV template developed by the Royal Society in 2019, highlights past performance in terms of contributions to knowledge generation, people development, the research community, and society or societal challenges.

Key Learnings from the Workshop

When traditional CVs are reviewed, evaluators interpret a researcher's achievements from lengthy bulleted lists, the formats of which are not consistent between candidates. As a result, individual researchers, as well as organizations, have generally [welcomed the move](#) away from these lists of achievements, to describing career trajectories and various contributions in more detail. These types of narrative give control back to the authors by allowing them to provide context for their contributions and achievements.

The adoption of a narrative format has also [generated confusion and debate](#) in the research community, particularly with respect to the expected content and how it should be evaluated. Guidance for applicants and training for evaluators is essential to create consistency and develop new norms. Even so, the question remains whether allowing and even encouraging “unconventional” or non-traditional information challenges existing norms or standards for evaluating researchers. By supporting research to monitor the effectiveness of narrative CVs, funding organizations can help to streamline and optimize their value.

The current narrative CV format might result in several [unintended negative consequences](#), such as increased workloads for CV authors and reviewers, the use of shortcuts during evaluation, and disadvantages for non-native speakers, minoritized groups, and those without support from the institution in completing the CV template.

Tanita Casci

UNIVERSITY OF OXFORD,

FORMERLY AT UNIVERSITY OF GLASGOW

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We found from a comparison of grant programs that those without an explicit focus on the principal investigator resulted in fairer assessments of applications for women.¹

Holly Witteman

UNIVERSITÉ LAVAL

Various challenges related to the adoption of narrative CVs were identified in the workshop, including the tension between consistency and flexibility across different funding schemes; the desire of funders to be simultaneously inclusive of a broader array of research outputs and still use selective criteria in proposal evaluation; and the dilemma of disclosure around “effective research time” calculations that allow for career breaks (e.g., parental leave), but could lead to bias. Participants raised the question as to whether CVs are needed across all types of funding schemes.

Language also matters in grant funding success.² The narrative CV’s inherent emphasis on language use may introduce bias and noise into the evaluation process, as evidenced by research on candidate essays, recommendation letters, and evaluation reports.^{3,4,5} Longer narratives may also increase the use of gendered language, which could lead to bias. Self-promotion tactics (e.g., verbal certainty, pronouns, superlatives) may also result in biased evaluations; for example, how might one distinguish confidence from competence?^{2,6} Importantly, funding organizations also need to consider and account for how narrative formats disadvantage non-native language applicants for grant funding.

“Lack of fit’ to the prototype results in shifting standards in performance evaluation. In addition, ‘selling science’ as an expectation of applicants and ranking grant proposals make funding decisions prone to bias. Process optimization helps to reduce these effects.”

Claartje Vinkenburg
INDEPENDENT EXPERT

“Language needs to be taken seriously, especially at scale and when there are social, psychological, institutional, or financial consequences involved as is the case for grant funding decisions.”

Dave Markowitz
UNIVERSITY OF OREGON

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“Gender bias can influence the evaluation of a woman’s narrative CV in three ways:

- Disproportionate constraints (downplayed accomplishments, more critical subjective feedback)
- Devaluation of contributions (more service work, fewer research outcomes)
- Acquiescence to the status quo (more work gaps, fewer qualified candidates apply).⁷”

Amy Diehl
WILSON COLLEGE

Adding structure to the content of a narrative CV and its evaluation can strengthen its utility by increasing reliability and validity, while reducing idiosyncratic biases.⁸ Another potential solution is providing evaluators with comparative feedback (e.g., ranking their average ratings), which has been shown to help align ratings and make them more reliable.⁹

“By providing a consistent structured format and evaluation process, funders can increase the narrative CV’s reliability in grant funding.”



Chris Hartwell
UTAH STATE UNIVERSITY

Knowledge-sharing between funding organizations is important in ensuring the narrative CV is developed as a robust tool for research assessment. It became clear during the workshop that funders would like a space to discuss alignment on the narrative CV format and its evaluation, as well as relevant communication on, and monitoring of, its adoption. At the same time, they want the flexibility to adapt the format to their specific needs and contexts.

Recommended Actions

01

Build a foundation to support the use of narrative CVs by creating a shared definition of what a narrative CV is and a list of objectives for what it hopes to achieve.

02

Focus on training for reviewers, applicants, and staff at funding organizations, to improve consistency in the evaluation process.

03

Monitor the effectiveness of narrative CVs to continually optimize their utility as a tool for robust research assessment.

References

1. Witteman, H. O.; Hendricks, M.; Straus, S.; Tannenbaum, C. Are Gender Gaps Due to Evaluations of the Applicant or the Science? A Natural Experiment at a National Funding Agency. *The Lancet* **2019**, 393 (10171), 531–540.
[https://doi.org/10.1016/S0140-6736\(18\)32611-4](https://doi.org/10.1016/S0140-6736(18)32611-4).
2. Markowitz, D. M. What Words Are Worth: National Science Foundation Grant Abstracts Indicate Award Funding. *Journal of Language and Social Psychology* **2019**, 38 (3), 264–282. <https://doi.org/10.1177/0261927X18824859>.
3. Campion, M. C.; Campion, M. A.; Campion, E. D.; Reider, M. H. Initial Investigation into Computer Scoring of Candidate Essays for Personnel Selection. *Journal of Applied Psychology* **2016**, 101 (7), 958–975.
<https://doi.org/10.1037/apl0000108>.
4. Madera, J. M.; Hebl, M. R.; Dial, H.; Martin, R.; Valian, V. Raising Doubt in Letters of Recommendation for Academia: Gender Differences and Their Impact. *Journal of Business and Psychology* **2019**, 34 (3), 287–303.
<https://doi.org/10.1007/s10869-018-9541-1>.
5. van den Besselaar, P.; Sandström, U.; Schiffbaenker, H. Studying Grant Decision-Making: A Linguistic Analysis of Review Reports. *Scientometrics* **2018**, 117 (1), 313–329.
<https://doi.org/10.1007/s11192-018-2848-x>.
6. Vinkenburg, C. J.; Ossenkop, C.; Schiffbaenker, H. Selling Science: Optimizing the Research Funding Evaluation and Decision Process. *Equality, Diversity and Inclusion: An International Journal* **2021**, ahead-of-print (ahead-of-print).
<https://doi.org/10.1108/EDI-01-2021-0028>.
7. Diehl, A. B.; Stephenson, A. L.; Dzubinski, L. M.; Wang, D. C. Measuring the Invisible: Development and Multi-Industry Validation of the Gender Bias Scale for Women Leaders. *Human Resource Development Quarterly* **2020**, 31 (3), 249–280.
<https://doi.org/10.1002/hrdq.21389>.
8. Levashina, J.; Hartwell, C. J.; Morgeson, F. P.; Campion, M. A. The Structured Employment Interview: Narrative and Quantitative Review of the Research Literature. *Personnel Psychology* **2014**, 67 (1), 241–293.
<https://doi.org/10.1111/peps.12052>.
9. Hartwell, C. J.; Campion, M. A. Getting on the Same Page: The Effect of Normative Feedback Interventions on Structured Interview Ratings. *Journal of Applied Psychology* **2016**, 101 (6), 757–778. <https://doi.org/10.1037/apl0000099>.