Toward a better understanding and management of the candidate experience throughout the application process

A Data Management Plan created using DMPonline.be

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Project abstract:

Many organizations face the challenge of finding the right personnel. At the same time, job seekers struggle to navigate through complex application processes in which their personal experiences influence their judgments about both the organization and themselves. To date, most research on candidate reactions and recruitment and selection practices has focused on candidates who accepted a job offer and focused and predominantly examined specific, isolated touchpoints in the candidate journey. This research proposal aims to advance current knowledge by taking a holistic experience approach toward the entire application process, across all touchpoints and for all candidates (including rejects and withdrawals). This approach will allow for a better understanding of and insight into how to manage candidate experience. The first study - using a diary method and critical incident technique - examines antecedents and mechanisms at play in forming a candidate experience. Next, in Study 2 we will develop and validate a scale that allows us to tap into the candidate experience construct. This scale will be helpful when linking the candidate experience to both individual-relevant (e.g., self-efficacy, perceived employability) and organizational-relevant (e.g., word-of-mouth intentions, intentions to reapply) outcomes of candidate experience (Studies 3 and 4, respectively). The results will shed light on what affects candidate experience, why, and how it can be managed strategically.

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Questionnaire

Describe the datatypes (surveys, sequences, manuscripts, objects …) the research will collect and/or generate and /or (re)use. (use up to 700 characters)

Study 1, 3 and 4 will collect survey data consisting of numerical and textual information from natural persons and will be fully anonymized. Data will be collected in Qualtrics, stored as .csv files, and analyses will be done in .spss and .r files (<1GB).

Study (2) will collect both survey data and interview data from natural persons and will be fully anonymized. Interviews will be recorded in Microsoft Teams (.mp3), transcribed as .txt, and analyzed in NVivo (.nvp) (<10GB). Names will be made unrecognizable (in audio and text), and the identity of the interviewees will be fully anonymized. Survey data will be collected in Qualtrics and will be stored as .csv files. Analyses will be saved as .spss and .r files (<1GB).

Specify in which way the following provisions are in place in order to preserve the data during and at least 5 years after the end of the research? Motivate your answer. (use up to 700 characters)

1. During the research: Laurens Biesmans (grant holder, all rights), Diane Arijs (access), Rein De Cooman (access) and Yves Van Vaerenbergh (access) will be able to access the research. After the research, in the case the grant holder does not remain linked to an academic institution, all rights will be given to the other responsible persons.
2. Storage during the research: on 1) OneDrive by KU Leuven on Laurens Biesmans' personal drive and 2) SharePoint by KU Leuven on Laurens Biesmans' personal drive.
3. Storage after the research: on 1) OneDrive by KU Leuven on one of the other responsible persons as well as on 2) their SharePoint by KU Leuven.

What's the reason why you wish to deviate from the principle of preservation of data and of the minimum preservation term of 5 years? (max. 700 characters)

N.A.

Are there issues concerning research data indicated in the ethics questionnaire of this application form? Which specific security measures do those data require? (use up to 700 characters)

N.A.

Which other issues related to the data management are relevant to mention? (use up to 700 characters)

N.A.

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DPIA

DPIA

Have you performed a DPIA for the personal data processing activities for this project?

- Not applicable

GDPR

Have you registered personal data processing activities for this project?

- Yes

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FWO DMP (Flemish Standard DMP)

1. Research Data Summary

List and describe all datasets or research materials that you plan to generate/collect or reuse during your research project. For each dataset or data type (observational, experimental etc.), provide a short name & description (sufficient for yourself to know what data it is about), indicate whether the data are newly generated/collected or reused, digital or physical, also indicate the type of the data (the kind of content), its technical format (file extension), and an estimate of the upper limit of the volume of the data.

Dataset Name	Description	Only for digital data New or Reused	Only for digital data Digital or Physical	Only for physical data Digital Data Type	Digital Data Format	Digital Data Volume (MB, GB, TB)	Physical Volume
		☐ Generate new data ☐ Reuse existing data	☐ Digital ☐ Physical	☐ Observational ☐ Experimental ☐ Compiled/ aggregated data ☐ Simulation data ☐ Software ☐ Other ☐ NA	☐ .por ☐ .xml ☐ .tab ☐ .csv ☐ .pdf ☐ .txt ☐ .rtf ☐ .dwg ☐ .tab ☐ .gml ☐ other: ☐ NA	☐ < 100 MB ☐ < 1 GB ☐ < 100 GB ☐ < 1 TB ☐ < 5 TB ☐ < 10 TB ☐ < 50 TB ☐ > 50 TB ☐ NA	
Pilot_Crytek_Short	Short survey for cv rejects to test scales	New data	Digital	Numerical, textual, survey data	.sps	<100 MB	
CIT_BECO	Critical incidents from BECO @KU Leuven	New data	Digital	Numerical, textual, survey data	.csv	<100 MB	
CIT_Crytek	Critical incidents from Crytek	New data	Digital	Numerical, textual, survey data	.csv	<100 MB	
CIT_Hudson_emails	E-mails received from candidates who want to participate in CIT study	New data	Digital	Textual, survey data	.csv	<100 MB	
CIT_Hudson	Critical incidents from Hudson	New data	Digital	Numerical, textual, survey data	.csv	<100 MB	
CIT_Thesis	Critical incidents from master's thesis 2022	New data	Digital	Numerical, textual, survey data	.csv	<100 MB	
CIT_ALL	Merged critical incidents dataset	New data	Digital	Numerical, textual, survey data, compiled/aggregated data	.sps	<100 MB	
CIT_Scale	Critical incidents linked to scale items	Reused from CIT	Digital	Numerical, textual, survey data, compiled/aggregated data	.nvp	<100 MB	
Scale_Interview_Participant#	Interview audio file for every participant	New data	Digital	Audio, interview data	.mp3	<1 GB	
Interviews_Scale_Transcripts	Interviews for scale development transcripts	New data	Digital	Textual, interview data, anonymized	.docx	<100 MB	
Interviews_Scale	Interviews linked to scale items	New data	Digital	Interview, textual	.nvp	<100 MB	
Itemsorting_Experts_Scale	Item sorting task by experts and suggestions	New data	Digital	Interview, textual, compiled/aggregated data	.csv	<100 MB	
Itemsorting_Candidates_Scale	Item sorting tesk by candidates and suggestions (thinking aloud)	New data	Digital	Interview, textual, compiled/aggregated data	.csv	<100 MB	
Purification_Scale	First scale purification	New data	Digital	Numerical, survey data, compiled/aggregated data	.csv	<100 MB	
Validity1_Scale	Second scale purification, reliability, validity	New data	Digital	Numerical, survey data, compiled/aggregated data	.csv	<100 MB	
Validity2_Scale	Discriminant validity, known-group validity, can be extended into further data collections	New data	Digital	Numerical, survey data, compiled/aggregated data	.csv	<100 MB	

Outcomes_Psych_W1	Psychological outcomes of CE wave 1	New data	Digital	Numerical, textual, survey data, compiled/aggregated data	.csv	<100 MB	
Outcomes_Psych_W2	Psychological outcomes of CE wave 2	New data	Digital	Numerical, textual, survey data, compiled/aggregated data	.csv	<100 MB	
Outcomes_Psych_W3	Psychological outcomes of CE wave 3	New data	Digital	Numerical, textual, survey data, compiled/aggregated data	.csv	<100 MB	
Outcomes_Org_W1	Organizational outcomes of CE wave 1	New data	Digital	Numerical, textual, survey data, compiled/aggregated data	.csv	<100 MB	
Outcomes_Org_W2	Organizational outcomes of CE wave 2	New data	Digital	Numerical, textual, survey data, compiled/aggregated data	.csv	<100 MB	
Outcomes_Org_W3	Organizational outcomes of CE wave 3	New data	Digital	Numerical, textual, survey data, compiled/aggregated data	.csv	<100 MB	

If you reuse existing data, please specify the source, preferably by using a persistent identifier (e.g. DOI, Handle, URL etc.) per dataset or data type:

N.A.

Are there any ethical issues concerning the creation and/or use of the data (e.g. experiments on humans or animals, dual use)? Describe these issues in the comment section. Please refer to specific datasets or data types when appropriate.

- No

SMEC-PRET approval: G-2021-4001-R6(AMD)

Will you process personal data? If so, briefly describe the kind of personal data you will use in the comment section. Please refer to specific datasets or data types when appropriate.

- Yes

For all surveys, participants receive an anonymous link but they have the opportunity to share their email with the researchers so they can be informed about the results of the study they participated in. In the case of low response rates, the researchers may also provide an opportunity to share their email for a lottery.
In study 3 & 4 we will collect multiwave data, meaning that during the first wave participants can leave their emails if they wish to participate in the next waves so that we can contact them to participate again.
All e-mail addresses will be stored on the secure Y-drive of the Faculty of Economics and Business, KU Leuven, which is a central storage that only the primary researcher has access to. After the studies, e-mail addresses will be deleted since they no longer serve us a purpose. From that point on, survey data are fully anonymized.
For the interviews, participants will be asked to tell about their latest recruitment experiences. In addition, we ask them about: which position they applied for and the outcome of this process. Private information, though not explicitly asked, such as income (e.g. when they talk about salary negotiations), will not be part of the analyses. The recordings will be converted to .mp3 files such that no faces can be recognized, and after names and other sensitive data is bleeped away, the identity of the interviewees becomes almost fully anonymous.

Does your work have potential for commercial valorization (e.g. tech transfer, for example spin-offs, commercial exploitation, …)? If so, please comment per dataset or data type where appropriate.

- Yes

Surveys related to critical incident study (1): results can be used to create checklists for organizations about the factors most influential in improving or damaging the candidate experience. The outcomes studies (3 & 4) add to this knowledge by showing in what way these moments will affect attitudes and behavior beyond this lasting experience.
Surveys related to the scale development (2): results are a measurement instrument for candidate experience, which can be adapted to specific organizations at different touchpoints during the application process. A general scale will be published in a scientific journal, but companies who wish more context-sensitive insight could consult a spin-off agency, or the researchers can develop a freemium model for different industries. For the latter, companies can freely access the published scale, but industry-relevant adaptations would require a fee. In addition, it is possible to turn the scale into a 'candidate experience dashboard' that companies can use to closely monitor their candidate experience.

Do existing 3rd party agreements restrict exploitation or dissemination of the data you (re)use (e.g. Material/Data transfer agreements/ research collaboration agreements)? If so, please explain in the comment section to what data they relate and what restrictions are in place.

- No

Are there any other legal issues, such as intellectual property rights and ownership, to be managed related to the data you (re)use? If so, please explain in the comment section to what data they relate and which restrictions will be asserted.

- Yes

We will collect data in collaboration with external organizations, which currently are Crytek GmbH, Telenet, and Hudson. With these organizations, we have signed agreements that protects both us as them. For us this means that they can only use our scales and findings for internal use until our research related to these materials has been published. The agreements protect them such that their company-sensitive insights will only be used for scientific purposes, and that results will only be shared with other organizations at an aggregated level. In the future, if more data is needed or if valorization opportunities arise, other companies may join and be subject to the same agreement procedures.

2. Documentation and Metadata

Clearly describe what approach will be followed to capture the accompanying information necessary to keep data understandable and usable, for yourself and others, now and in the future (e.g., in terms of documentation levels and types required, procedures used, Electronic Lab Notebooks, README.txt files, Codebook.tsv etc. where this information is recorded).

For all data collections, an .xlsx file (similar to a README) of the used scales and instructions is prepared by the researcher and reviewed by the supervisors of this project. These files include the typologies of questions, the codes that were given to the variables in the datasets, the references of the original source of the variables and their response categories and variables. During and after each study, the files are also stored on the OneDrive and SharePoint of KU Leuven, respectively. These files will then be shared with the supervisors of this project (open, download) but full access (add, delete) remains with the grant holder. Furthermore, every step in the analyses and methodology (e.g., data cleaning, recoding variables, etc.) undertaken by the researcher is documented either via codes or syntax files, so that replication and reviews are possible.

Will a metadata standard be used to make it easier to find and reuse the data? If so, please specify (where appropriate per dataset or data type) which metadata standard will be used. If not, please specify (where appropriate per dataset or data type) which metadata will be created to make the data easier to find and reuse.

- No

The datafiles generated from Qualtrics include metadata (e.g., date, number of
survey, time, location, etc.) and are analyzed and recoded in SPSS. The format of this platform is used during this study for convenience purposes. More specifically, the xlsx files downloaded from both Qualtrics already include the metadata for each file and these are stored in the README.xlsx file mentioned above. The metadata files for the surveys will be saved as .csv files after the project has ended.

3. Data storage & back-up during the research project

Where will the data be stored?

1. During the research: Laurens Biesmans (grant holder, all rights), Diane Arijs (access), Rein De Cooman (access) and Yves Van Vaerenbergh (access) will be able to access the research. After the research, in the case the grant holder does not remain linked to an academic institution, all rights will be given to the other responsible persons.
2. Storage during the research: on 1) OneDrive by KU Leuven on Laurens Biesmans' personal drive and 2) SharePoint by KU Leuven on Laurens Biesmans' personal drive. Emails from participants will be stored on Laurens Biesmans' KU Leuven private Y-Drive.
3. Storage after the research: on 1) OneDrive by KU Leuven on one of the other responsible persons as well as on 2) their SharePoint by KU Leuven. Emails will be deleted from the Y-Drive.

How will the data be backed up?

By working with both OneDrive and SharePoint, all files will exist on two different cloud-storage platforms. This ensures us that in the case one source becomes inaccessible, the other is still available Back-ups on these platforms happen automatically. At the end of every data collection, the data will also be stored on an external SSD that can only be accessed by the principal investigator using biometric verification and a password. In this way, offline access to the data is ensured.

Is there currently sufficient storage & backup capacity during the project? If yes, specify concisely.
If no or insufficient storage or backup capacities are available, then explain how this will be taken care of.

- Yes

We will only collect two sources of data: surveys and interviews. The former only consists of very small files that don't require much storage space. The latter will be converted to .mp3, which is also more storage-friendly than .wav or .mp4. Since we only require limited interviewees during the project, the total storage space required for this is very small compared to subscription plans by either storage platform.

How will you ensure that the data are securely stored and not accessed or modified by unauthorized persons?

OneDrive, SharePoint and the Y-Drive are only modifiable by signing in with the credentials of Laurens Biesmans. For this, he will only use a laptop administered by KU Leuven, with KU Leuven's network security, and only when connected with a VPN to KU Leuven's servers. Access to the web interface is controlled through a Shibboleth authentication process. Access from other devices or access without proper access authorization is prevented by a combination of system and storage access control, encryption and firewalling of the systems involved. Data rights are limited to the project supervisors, who make use of the same materials and protection measures as the grant holder, such that they can only access the data but not modify it.

What are the expected costs for data storage and backup during the research project? How will these costs be covered?

Since the basic subscription plans for data storage that were already set-up when the grant holder started at KU Leuven, no additional storage (costs) will be required.

4. Data preservation after the end of the research project

Which data will be retained for at least five years (or longer, in agreement with other retention policies that are applicable) after the end of the project? In case some data cannot be preserved, clearly state the reasons for this (e.g. legal or contractual restrictions, storage/budget issues, institutional policies...).

Only the datafiles that are eventually used for the analyses in the research studies are retained, so other scholars could verify or replicate the results when necessary or requested. Also the data

that was collected during pilot studies is stored for the expected 10 years, in case the PhD researcher would prefer to carry out extra analyses or use the data for additional purposes (e.g., verifying other hypotheses, providing an example during teaching courses, etc.). Datafiles with personal data (i.e., the e-mail addresses) are deleted as soon as they are no longer required.

Where will these data be archived (stored and curated for the long-term)?

A separate archive is made on the secured KU Leuven X-drive when the PhD researcher finishes a study to store the data for the longer term (i.e., the required 10 years).

What are the expected costs for data preservation during the expected retention period? How will these costs be covered?

No costs are expected while storing the data, as this service is free for KU Leuven researchers. Nonetheless, unexpected costs can be carried by the FWO bench fee.

5. Data sharing and reuse

Will the data (or part of the data) be made available for reuse after/during the project? In the comment section please explain per dataset or data type which data will be made available.

- Yes, in an Open Access repository

We plan to provide our anonymized data on which the analyses of each study are based in an open access repository. However, if possible, only for a limited duration (10 years).

If access is restricted, please specify who will be able to access the data and under what conditions.

N.A.

Are there any factors that restrict or prevent the sharing of (some of) the data (e.g. as defined in an agreement with a 3rd party, legal restrictions)? Please explain in the comment section per dataset or data type where appropriate.

- Yes, Privacy aspects

For data collected at companies, we will only provide Open Access to those variables that are not attributable to natural persons. This means that qualitative data (as well as critical incidents or suggestions for improvement for the company collected in surveys) will not be present.

Where will the data be made available? If already known, please provide a repository per dataset or data type.

In an Open Access repository. The anonymized datasets with documentation will be available through the Open Science Framework, on my public profile.

When will the data be made available?

After publication of the results.

Which data usage licenses are you going to provide? If none, please explain why.

The Open Science Framework works with licenses, which we possibly will use to avoid our data being used for commercial ends or modified by unauthorized people.

Do you intend to add a PID/DOI/accession number to your dataset(s)? If already available, you have the option to provide it in the comment section.

- Yes

What are the expected costs for data sharing? How will these costs be covered?

We do not expect costs for data sharing. The OSF is a free service, managed and maintained by the Center for Open Science.

6. Responsibilities

Who will manage data documentation and metadata during the research project?

The grant holder, Laurens Biesmans

Who will manage data storage and backup during the research project?

The grant holder, Laurens Biesmans.

Who will manage data preservation and sharing?

The grant holder, Laurens Biesmans, and afterwards his supervisors Rein De Cooman, Diane Arijs and Yves Van Vaerenbergh.

Who will update and implement this DMP?

The principal investigator, Laurens Biesmans, bears the end responsibility to implement and update this DMP.

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