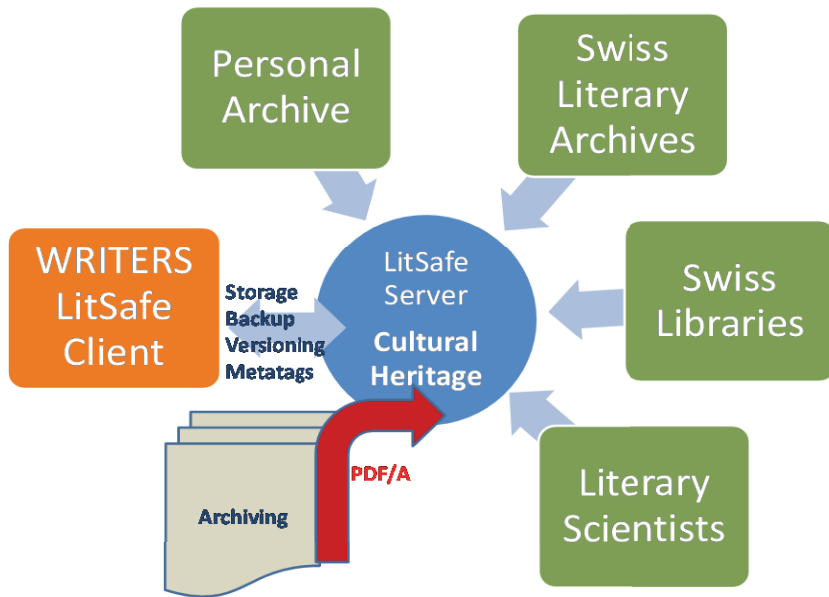# Digital Literary Writing
and the long-term conservation of cultural heritage

Context. Digital data archiving has become an important issue for libraries and national institutions in recent decades due to the fast changes in information and communication technologies. For a society's cultural identity to be transformed into the heritage for future generations.

Writing in general, as well as literary production, plays a decisive role in constituting a society's cultural identity. But the culture of writing and its tools have been disturbed in the course of the technological changes within our information society. The evolution from analogue to binary writing systems took place with authors hardly noticing. This mostly concerns literary writers who use computers as an alternative to traditional, mechanical means, namely analogue typewriters.

Like most users of digital writing tools, these authors are often not concerned with the short-term life cycles of document-formats or storage-devices. Correspondences with publishers, text-versions and other documents risk becoming unreadable or even destroyed. An important part of cultural heritage is therefore threatened to be lost forever.

Future users of our software called LitSafe will be professional writers, the Swiss Literary Archives at the Swiss National Library, other libraries and archives, as well as literary scientists and all persons interested in literature.

Traditional and contemporary alphabets

Unicode code point	character	UTF-8 (bin.)	numerical HTML
U+0041	A	01000001	A
U+0042	B	01000010	B
U+0043	C	01000011	C
U+0044	D	01000100	D
U+0045	E	01000101	E
U+0046	F	01000110	F
U+0047	G	01000111	G
U+0048	H	01001000	H
U+0049	I	01001001	I
U+004A	J	01001010	J
U+004B	K	01001011	K
U+004C	L	01001100	L
U+004D	M	01001101	M
U+004E	N	01001110	N
U+004F	O	01001111	O
U+0050	P	01010000	P
U+0051	Q	01010001	Q
U+0052	R	01010010	R
U+0053	S	01010011	S
U+0054	T	01010100	T
U+0055	U	01010101	U
U+0056	V	01010110	V
U+0057	W	01010111	W
U+0058	X	01011000	X
U+0059	Y	01011001	Y
U+005A	Z	01011010	Z

Research Project. In this research project we explored working conditions and working tools of nine professional Swiss writers by using a qualitative questionnaire, semi-structured interviews and visits to the workplace. The results of these investigations were used to build the basis for conceiving and developing a solution for authors to properly administer the documents and correspondences of their writing process.

Results. In summary we can indicate the following problems that emerged from literary writing with digital tools:

- The constant change of document-formats tended to result in corrupt or unreadable documents and therewith to their loss.
- Consecutive overwriting of documents prevented versions being conserved and consequently resulted in the lack of production steps.
- The ephemeral state of tools and storage-devices tended to result in the disappearance of versions and correspondences.

The interviewed authors' attitudes towards long-term archiving of their writing process leaned toward the side of caution. Most of them were principally concerned with their own access to their texts. They were less concerned about the secondary use of their stored documents.

LitSafe. The findings of the case studies lead us to chose a strong writers focus for the conception and development of the working environment. It should primarily serve the authors themselves. If authors use a professional environment for data management, long-term archiving encounters less risks and cultural heritage has a chance to be saved.

For the structural conception of the application called LitSafe we leaned on already established standards for metadata, such as ISAD(G), ISAAR(CPF) and the Dublin Core . The case studies lead us to additional, specific, literary metadata that are not offered by the mentioned standards, nor by already existing archive solutions, for example the working title of a text versus the final title for publication, or the period of development versus the document's save timestamp.

For the technical development we decided to use a client-server architecture with the open source software Jackrabbit offered by Apache. Jackrabbit is a fully featured content repository that provides a set of functionalities for storing, accessing, and managing content. LitSafe extends Jackrabbit to be an adapted tool for literary writers by extending specific metadata, access rights for collaboration and consultation, workflows for heritage and linking to the national library and other archives.

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