



TELECOM
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Towards Personal infrastructure to manage long term open learner models

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Summary

- **Motivation**
- **Research problems**
- **Related works**
- **Our solution**
- **Conclusion and perspectives**

Motivation: Alice's example

Alice is an engineer

- Twelve years of primary / high school in **Australia**
- Four years at a school engineering in **Belgium**
- A final year project in **Germany**
- Open Badges and **online** certificates
- Assessed professional skills at work in **different positions**
- Recommended by many professionals on **LinkedIn**
- Involved in **programming communities**

Motivation: Alice needs

■ Needs

- Collect data about any knowledge / skill
 - Formal/informal learning
 - Different countries
- Lifelong control of these data
- Monitor / modify / store / publish /share her Learner Models

■ Difficulties

- Learning data scattered on different platforms and websites
- Absence of any control over these data
- Absence of any defined access duration



Research Problems

- How to render learners to be masters of their learning achievements independently from any platforms?
- What is the suitable functional and technical infrastructure to achieve this goal?



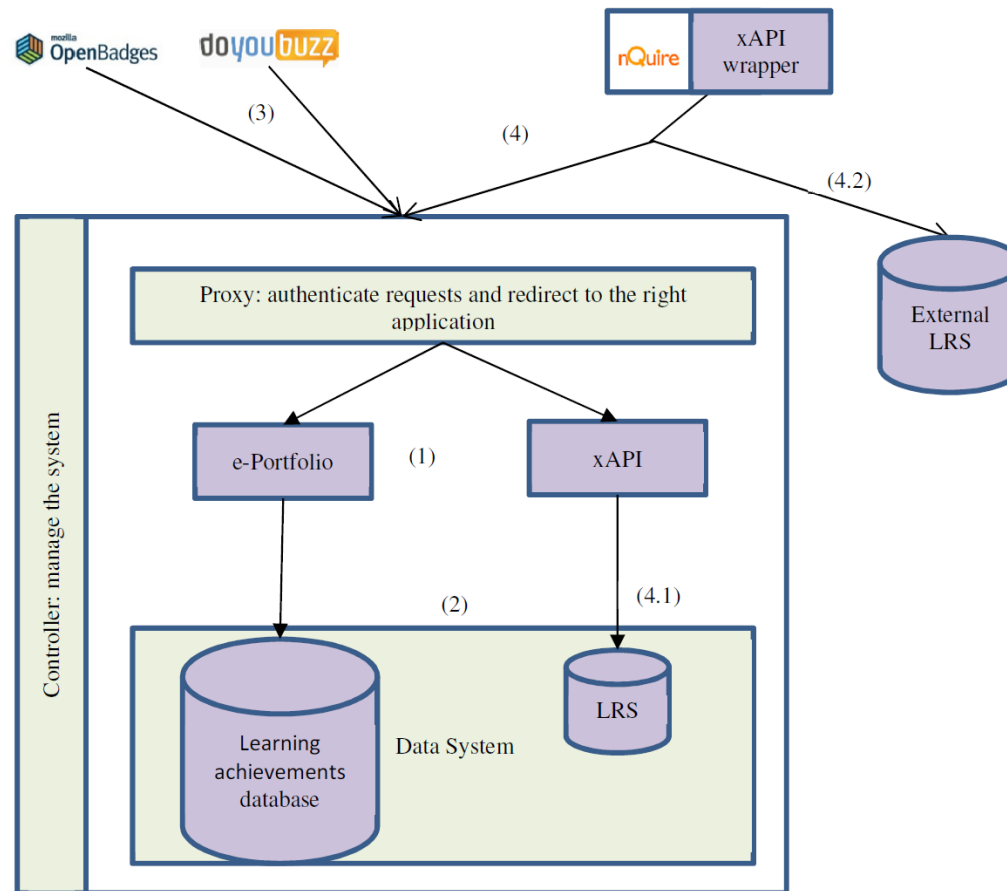
Important criteria

- **Data access**
- **Data duration**
- **Personal data storage**
- **Data transfer**

Related works

	Data access	Data duration	Personal Data Storage	Data Transfer
TenCompetence	Yes	Short	No	No
Army Learning Concept	Yes	Short	No	No
MyData - Midata	No	No	No	Yes
Open Badge	No	Long	No	Yes

Our Solution



Source code available at :

<https://github.com/CPatchane/cozy-portfolio/>

<https://github.com/hazem92/Cozy-Learning-Record-Store>

Our solution: Alice' s example

■ Thanks to our architecture:

- Alice can **aggregate learning data** from multiple sources
- She can **have in her personal cloud her diplomas** from
 - primary/high school in Australia,
 - School engineering in Belgium,
 - Her certificate training from Germany,
 - And other online certifications (Open Badges, LinkedIn, Do YouBuzz...).
- She can **store for her whole life these certifications** indepently from any institution or commercial platform.
- She can **monitor ongoing activities** through xAPI collection, including informal learning.
- She can **manipulate her portfolio** as a completely Independent Open Learner Model.



Conclusion

- Lifelong learning is a key issue in our life.
- Learners have their personal learning scattered on different platforms and website without any control / defined access duration.
- We propose a solution that allows the control of personal learning data by learners themselves, the persistence, and the privacy.
- This work is dedicated for all lifelong learners without any specific IT competency in a lifelong perspective.



Perspectives

- **Add the “exchange” dimension to the proposed architecture**
- **Ensure trust and scrutability dimensions**
- **Evaluate the learner’s acceptability of our approach**
- **Test how the lifelong learners’ data management can promote the learning-to-learn skills**



Thank you 😊!