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**

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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**

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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

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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?
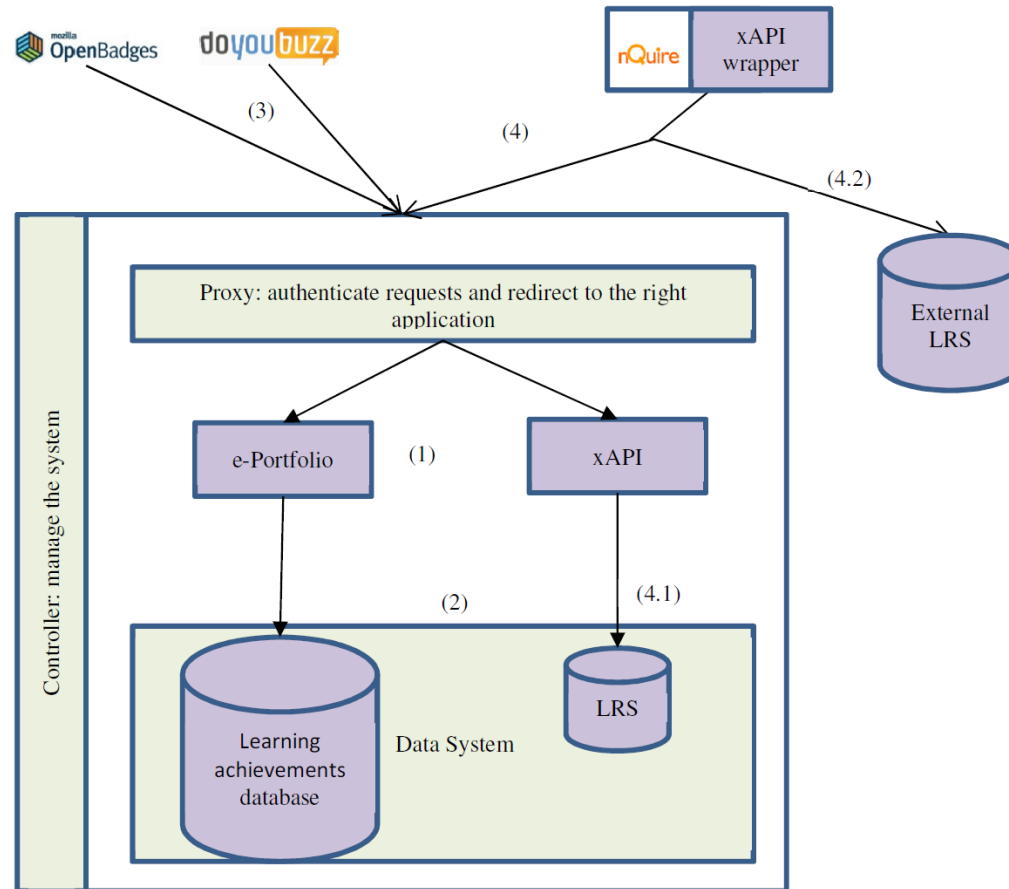
Important criteria

- **Data access**

- **Data duration**

- **Personal data storage**

- **Data transfer**

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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

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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 9Open Badges, LinkedIn, Do YouBuzz…).
  - She can store for her whole life these certifications indepently from ny institutions or commercial platforms.
  - She can monitor ongoing activities through xAPI collection, including informal learning.
  - She can manipulate her portfolio as a completely Independent Open Learner Model.
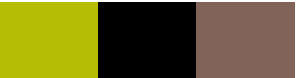
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Conclusion

- **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.**

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Perspectives

- **Add the "exchange" dimension to the proposed architecture**

- **Ensure the 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 ☺!

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