


Open Credentials for Open Education Moving the Needle Forward

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Knowledge Innovation Centre

Course in Open Education Design – Vipava, 6th July 2018

A close-up photograph of a chain-link fence. A heavy, rusty metal chain is stretched across two vertical metal posts. A silver padlock is attached to the chain, locking the fence. The background is a blurred outdoor scene with greenery and a blue sky. A black semi-transparent rectangle is overlaid on the left side of the image, containing white text.

What does this
photo make
you think of?

CLOSED

no knowledge what
is inside

can only be used
how gatekeeper
intended

no public benefit

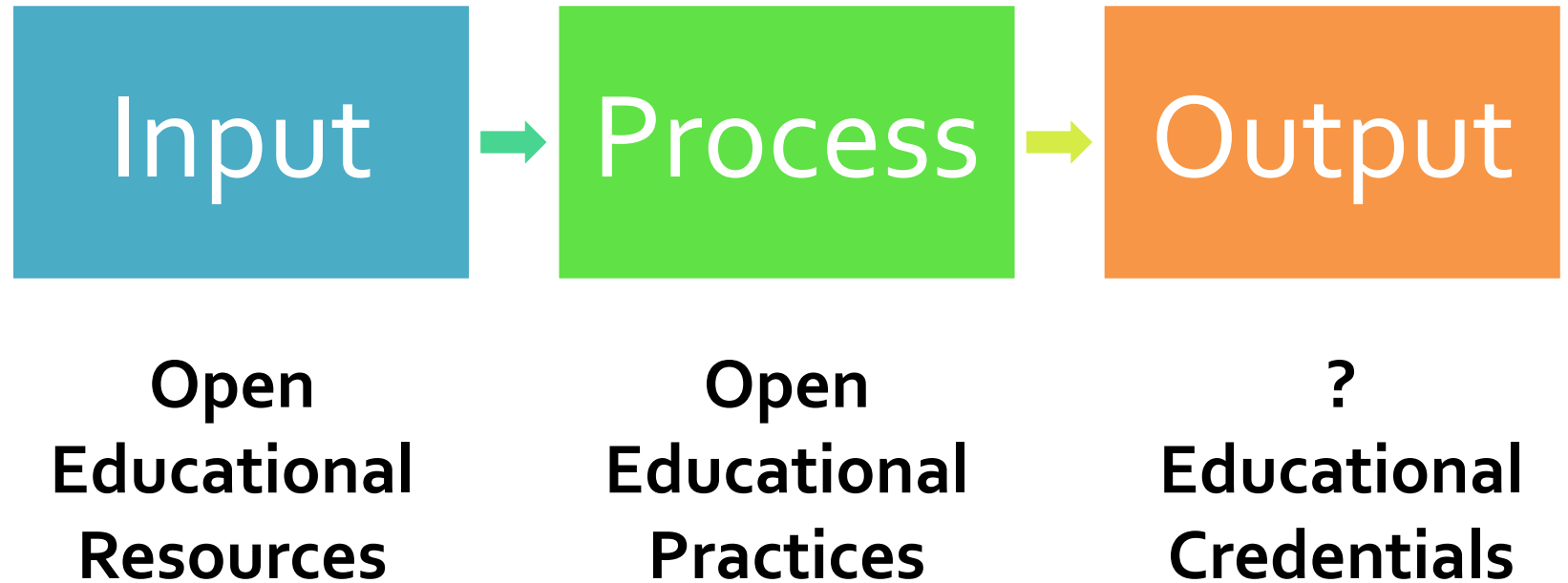


Education is a Public Good

This means

- Open Access to Educational Opportunities
- Use of Open Educational Resources
- Empowerment of Students through Open Educational Practices

A typical
process model
for Open
Education



CLOSED

no knowledge what
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Northwestern University

ON RECOMMENDATION OF THE FACULTY OF THE
COLLEGE OF ARTS AND SCIENCES

NORTHWESTERN UNIVERSITY HAS CONFERRED THE DEGREE OF
BACHELOR OF ARTS

UPON

KHANH C. DU

WHO HAS HONORABLY FULFILLED ALL THE REQUIREMENTS PRESCRIBED
BY THE UNIVERSITY FOR THAT DEGREE

DONE AT EVANSTON ILLINOIS THIS EIGHTEENTH DAY OF JUNE IN THE
YEAR ONE THOUSAND NINE HUNDRED AND NINETY-FOUR A.D.


Howard J. Truiano
CHAIRMAN OF THE BOARD OF TRUSTEES

Dee Paul Jr.
SECRETARY OF THE BOARD OF TRUSTEES



Arnold R. Weber
PRESIDENT OF THE UNIVERSITY

Lawrence B. Duman
DEAN

A close-up photograph of shattered glass, showing numerous sharp, jagged fragments and a network of cracks. The glass is broken into many small pieces, some of which are still attached to the main structure. The background is a dark, mottled grey. On the left side, there is a dark semi-transparent rectangular area containing white text.

(Digital)
Credentials
are Broken

Shards of the Problem

- Limited Access to Underlying Information
- Credentials are still not digital
- Lack of (Technical) Standards for Credential Information
- Closed Standards for Security & Verification
- No Aggregation of Credential Data

Limited Access
to Underlying
Information

Northwestern University

What does this mean?
What does he know?

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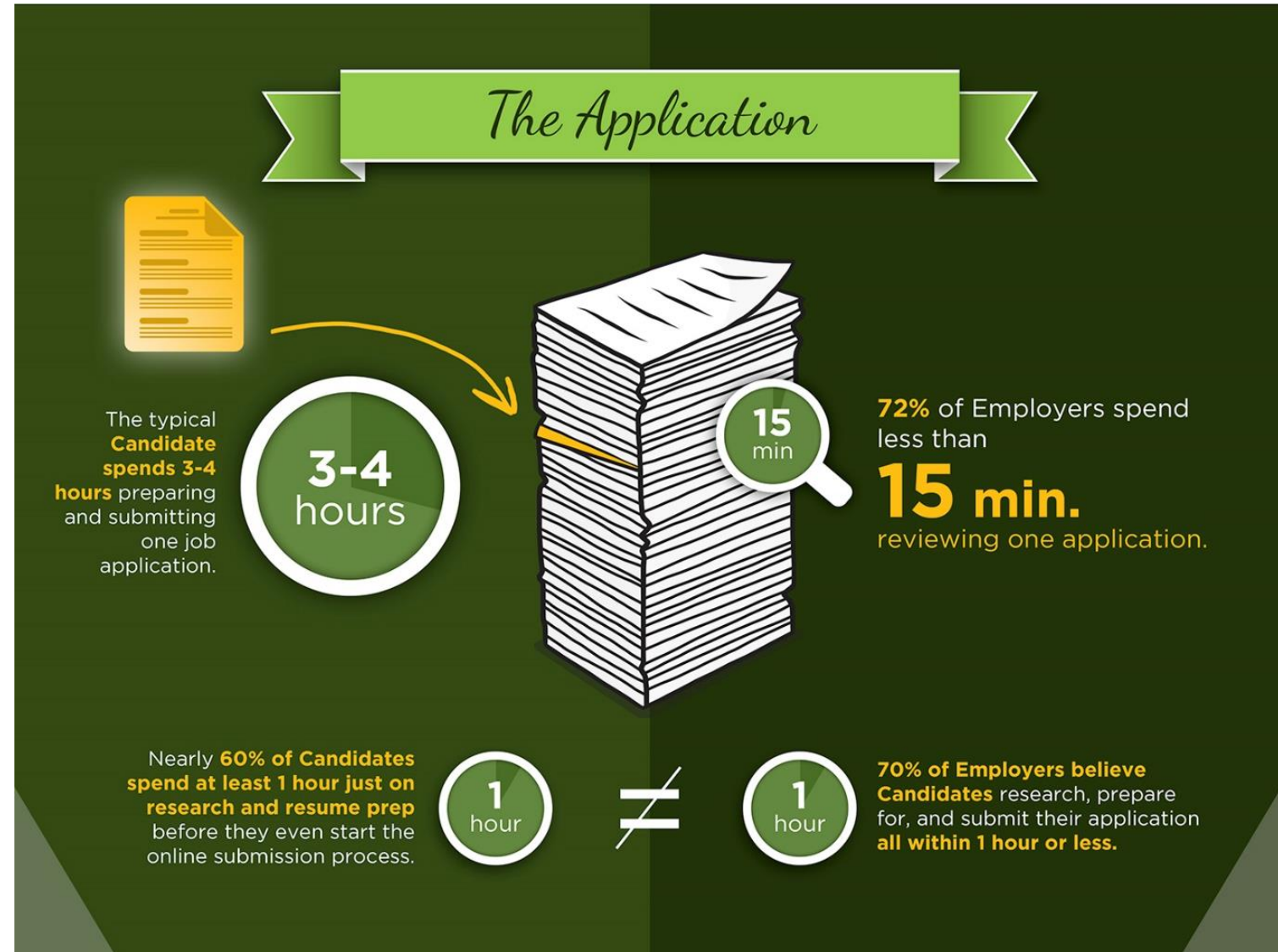
Dee Paul Jr.
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Lawrence B. Duma
DEAN

The average employer will not research your credentials



The average employer will not research your credentials

If it costs an employer more to **verify a credential** than to **test the skills**, the credential is effectively worthless.

Paper
credentials are
hard to use
and share

Online Store

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- Home
- Product Catalogue ▶
- Conferences & Events ▶
- Short Courses ▶
- Help & Information ▶

All Departments

Search this Site

? Help

My Account

Shopping Basket

Items: 2 £20.00

Home > Product Catalogue > Official Documents and Letters > Transcripts

Graduate / Leavers Transcript (Graduate 2002 onwards)



Description

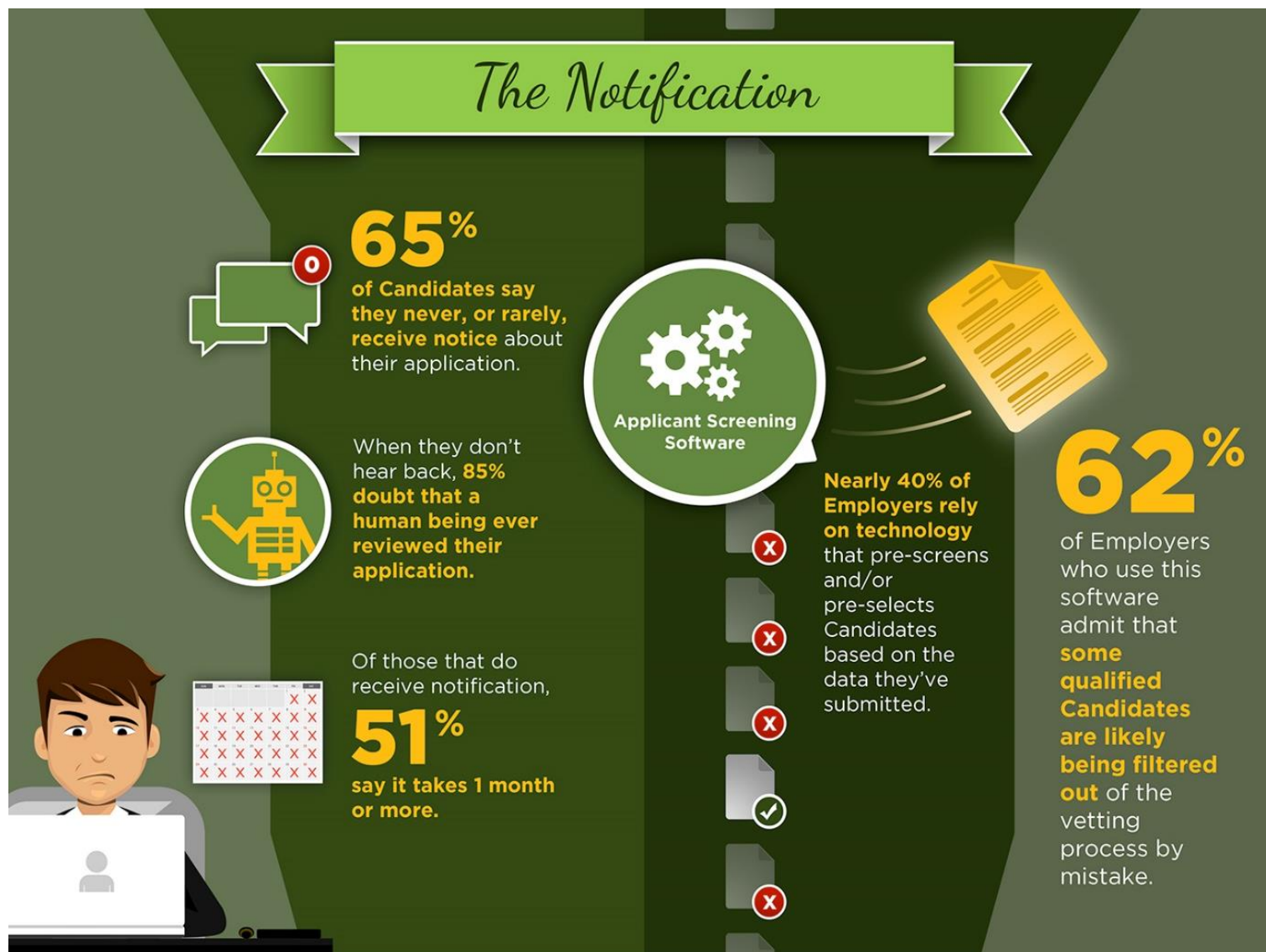
Graduate/Leavers transcripts can be requested if you graduated or have withdrawn from the University of Nottingham from 2002 onwards. These documents can take up to five working days to produce. This does not include the delivery period.

If you choose to have this document sent by courier there will be an additional cost of £30 at checkout. This will provide a more secure delivery and in some instances a quicker delivery service. **If you wish to use a courier, please note that they will not deliver to PO Box addresses.**

Information - please read before ordering:

- **BMBS or BMedSci Graduate Transcripts can be ordered [here](#)**
- **Pre-Reg Nursing and Midwifery Transcripts can be ordered [here](#)**
- This order is only for students who graduated or withdrew from the University after 2002.
- Graduate transcripts confirm your final degree classification along with a breakdown of modules and marks.

Lack of Technical Standards leads to exclusion



Closed Standards for Security and Verification

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Basic fields	Basic fields	Basic fields	API's
	Personalized branding	Personalized branding	SSO
	Comments	Comments	Advanced branding
		Collect Payments	Customizable usage limits

No Aggregation of Credential Data



Closed Credentials

- expensive
- hard to use and share
- hinder **Open Education** by failing to evidence flexible learning pathways in a transparent manner
- **exclude the people who need them most**
- can be abused by networks of intermediaries
- do not inform policy



The Road to Open

Disrupting Credentials for the Public Good

We have all the
pieces for an
open credential
system



EU Standards for Qualifications

- **European Qualifications Framework:** gives an indication as to the *level* of various qualifications
- **European Diploma Supplement:** provides a standardised template to give additional information about a degree
- **European Credit Transfer System:** allows for individual learning units to be described in terms of knowledge, skills, responsibility and autonomy
- **European Skill, Competences, Qualifications and Occupations** database provides a standard terminology

Not for non-formal education or microcredentials

Only for degrees.

Only for Higher Education
- not included fully in qualification

Not used by all the tools above

Technical Standards: Open Badges



Earn

Earn Open Badges for skills you learn online and in person



Issue

Anyone can create & issue Open Badges to recognize the achievements of others



Display

Share your Open Badges as verifiable records of your learning

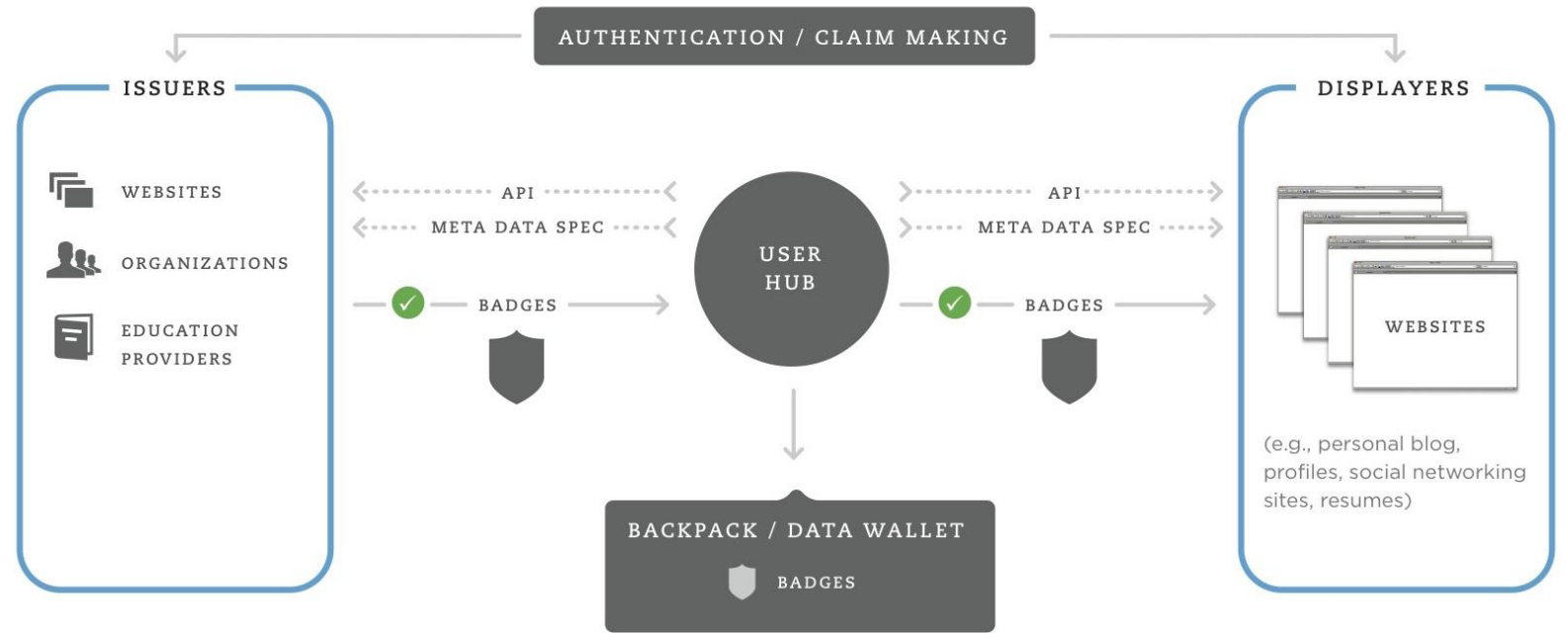


Understand

Verify Open Badges and accept them as records of achievement.

An Open Infrastructure for Credentials

OPEN BADGE SYSTEM INFRASTRUCTURE



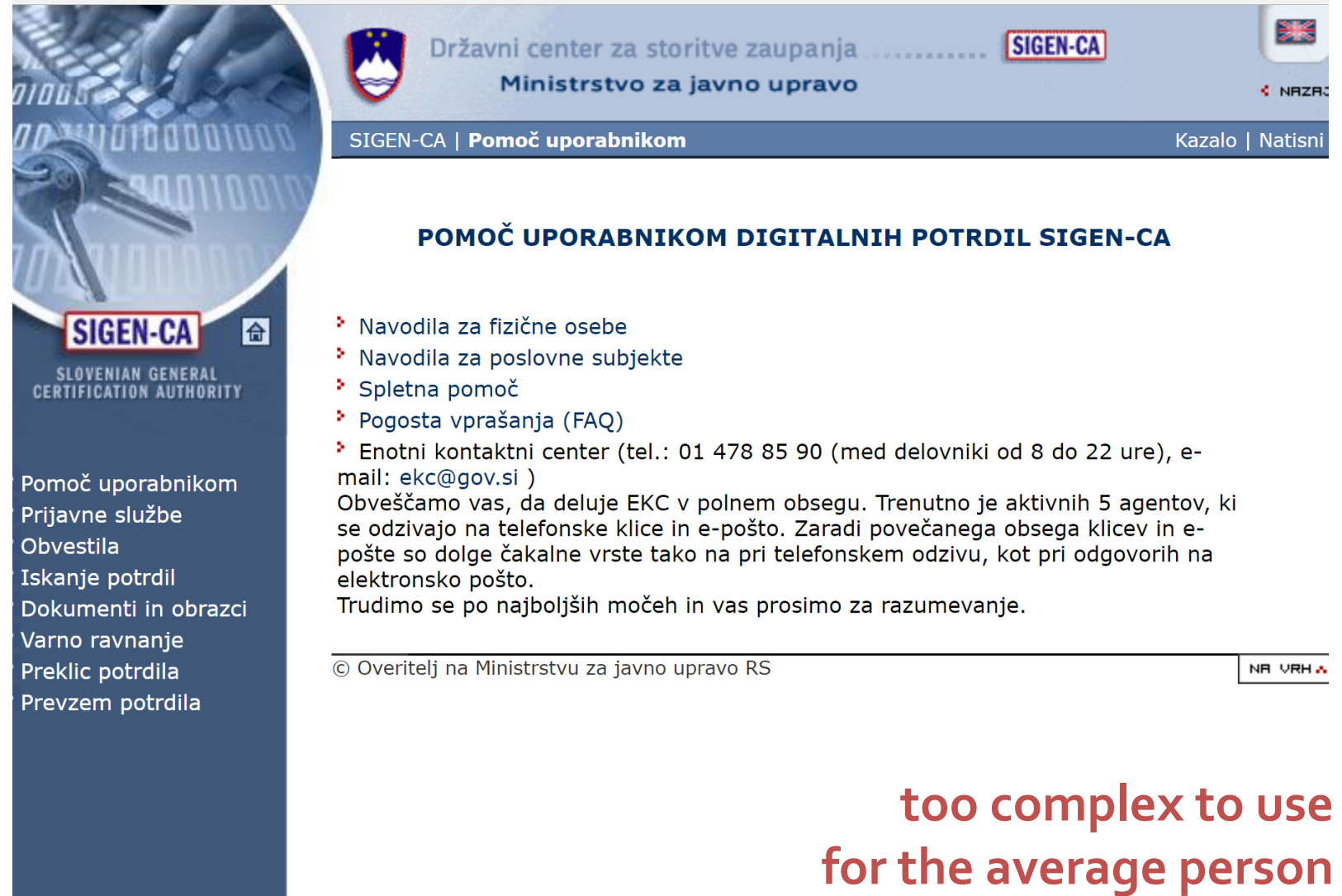
- Independent and agnostic. Outside of Mozilla infrastructure.
- ✓ User consents to accept badges into hub, as well as to send to site for display.

```
{
  "@context": "https://w3id.org/openbadges/v2",
  "id": "https://example.org/assertions/123",
  "type": "Assertion",
  "recipient": {
    "type": "email",
    "identity": "alice@example.org"
  },
  "issuedOn": "2016-12-31T23:59:59+00:00",
  "verification": {
    "type": "hosted"
  },
  "badge": {
    "type": "BadgeClass",
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    "name": "3-D Printmaster",
    "description": "This badge is awarded for passing the 3-D printing knowledge and safety test.",
    "image": "https://example.org/badges/5/image",
    "criteria": {
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    }
  },
  "issuer": {
    "id": "https://example.org/issuer",
    "type": "Profile",
    "name": "Example Maker Society",
    "url": "https://example.org",
    "email": "contact@example.org",
    "verification": {
      "allowedOrigins": "example.org"
    }
  }
}
```

Too open to be useful?

National ID Systems

can replace
companies as
sources of trust
for signing



The image shows a screenshot of the SIGEN-CA website. At the top, there is a header with the Slovenian coat of arms, the text 'Državni center za storitve zaupanja' and 'Ministrstvo za javno upravo', and the SIGEN-CA logo. Below the header, there is a navigation bar with 'SIGEN-CA | Pomoč uporabnikom' and 'Kazalo | Natisni'. The main content area features a large circular graphic with a hand typing on a keyboard and a key, with the SIGEN-CA logo and 'SLOVENIAN GENERAL CERTIFICATION AUTHORITY' text. Below this, there is a list of services: 'Pomoč uporabnikom', 'Prijavne službe', 'Obvestila', 'Iskanje potrdil', 'Dokumenti in obrazci', 'Varno ravnanje', 'Preklic potrdila', and 'Prezem potrdila'. To the right of this list, there is a section titled 'POMOČ UPORABNIKOM DIGITALNIH POTRDIL SIGEN-CA' with a list of assistance options: 'Navodila za fizične osebe', 'Navodila za poslovne subjekte', 'Spletna pomoč', 'Pogosta vprašanja (FAQ)', and 'Enotni kontaktni center (tel.: 01 478 85 90 (med delovniki od 8 do 22 ure), e-mail: ekc@gov.si)'. Below this list, there is a paragraph: 'Obveščamo vas, da deluje EKC v polnem obsegu. Trenutno je aktivnih 5 agentov, ki se odzivajo na telefonske klice in e-pošto. Zaradi povečanega obsega klicev in e-pošte so dolge čakalne vrste tako na pri telefonskem odzivu, kot pri odgovorih na elektronsko pošto. Trudimo se po najboljših močeh in vas prosimo za razumevanje.' At the bottom, there is a footer with '© Overitelj na Ministrstvu za javno upravo RS' and the 'NA VRH' logo.

Državni center za storitve zaupanja
Ministrstvo za javno upravo

SIGEN-CA

SIGEN-CA | Pomoč uporabnikom

Kazalo | Natisni

POMOČ UPORABNIKOM DIGITALNIH POTRDIL SIGEN-CA

- ❖ Navodila za fizične osebe
- ❖ Navodila za poslovne subjekte
- ❖ Spletna pomoč
- ❖ Pogosta vprašanja (FAQ)
- ❖ Enotni kontaktni center (tel.: 01 478 85 90 (med delovniki od 8 do 22 ure), e-mail: ekc@gov.si)

Obveščamo vas, da deluje EKC v polnem obsegu. Trenutno je aktivnih 5 agentov, ki se odzivajo na telefonske klice in e-pošto. Zaradi povečanega obsega klicev in e-pošte so dolge čakalne vrste tako na pri telefonskem odzivu, kot pri odgovorih na elektronsko pošto. Trudimo se po najboljših močeh in vas prosimo za razumevanje.

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NA VRH

too complex to use
for the average person



With Blockchain you don't need an intermediary to sign a document at all

the technology is still extremely young



PREMIUM



Hi Anthony Fisher,
start your free trial to unlock the power of LinkedIn

Career

Get hired and get ahead

- Stand out and get in touch with hiring managers
- See how you compare to other applicants
- Learn new skills to advance your career

[Select plan](#)

Business

Grow and nurture your network

- Find and contact the right people
- Promote and grow your business
- Learn new skills to enhance your professional brand

[Select plan](#)

Sales

Unlock sales opportunities

- Find leads and accounts in your target market
- Get real-time insights for warm outreach
- Build trusted relationships with customers and prospects

[Select plan](#)

Hiring

Find and hire talent

- Find great candidates, faster
- Contact top talent directly
- Build relationships with prospective hires

[Select plan](#)

A Global Platform for Skills already exists...

**should one company have
a monopoly on skills data?**

Elements of a System for Open Educational Credentials

User-Held Credentials

Open Standards

Open Tech Stack

Independent Verification

Open Aggregation

Shameless
self-
promotion 😊



Two Ongoing Initiatives

Our little big challenge....

Create a **digital** standard format for documenting open education credentials based on **ECTS**



OE PASS

oe-pass.eu

Two Ongoing Initiatives

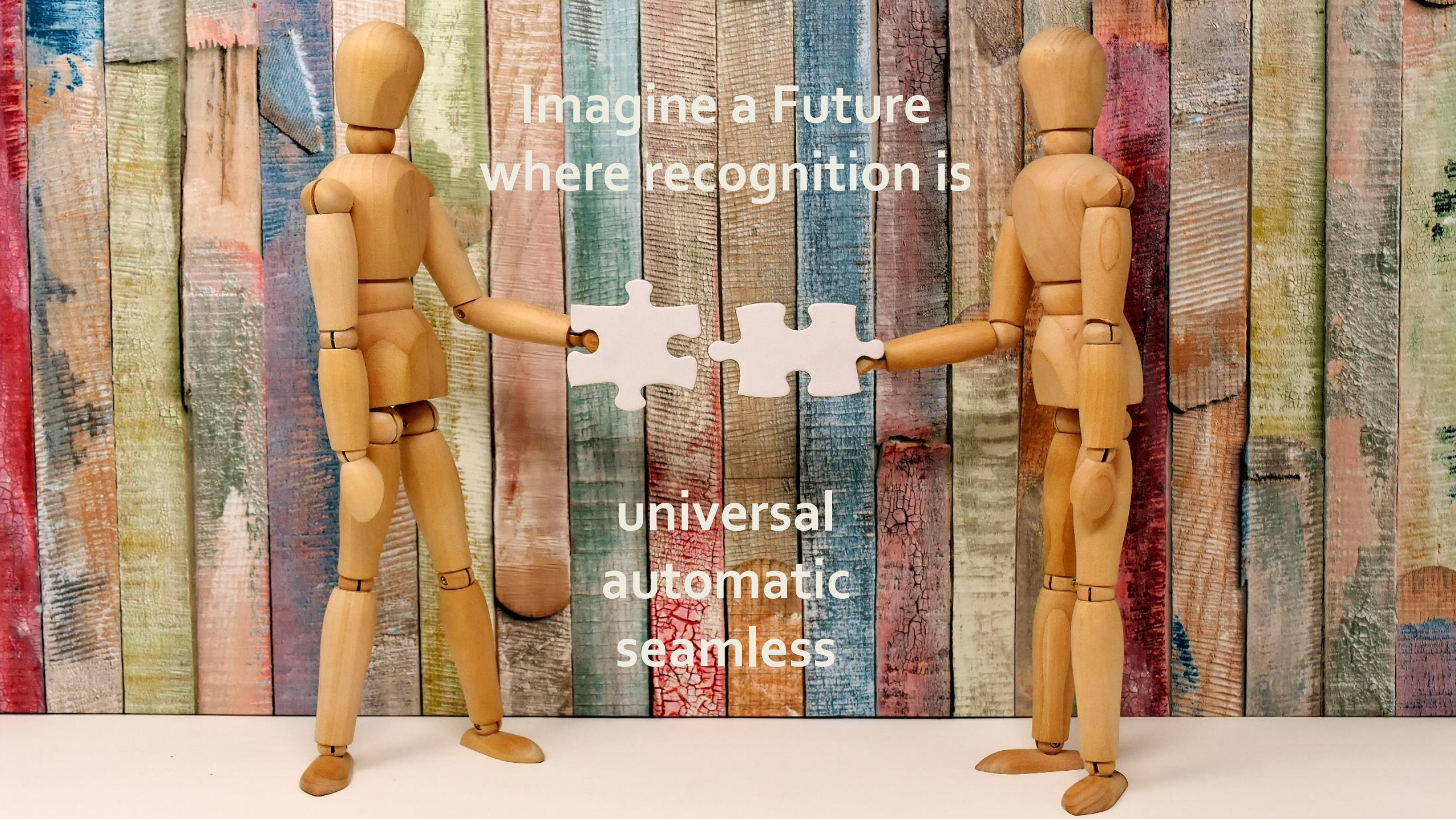
Our little big challenge....

Create a **model blockchain** infrastructure for storing and automatically verifying credentials



MicroHe

microcredentials.eu

The image features two wooden mannequins, one on the left and one on the right, standing against a background of vertical wooden planks. Each plank is painted with a different color, including shades of blue, green, red, and grey, creating a vibrant, textured wall. The mannequins are holding two white puzzle pieces that fit together in the center. The text is overlaid on the image in a clean, white, sans-serif font.

Imagine a Future
where recognition is

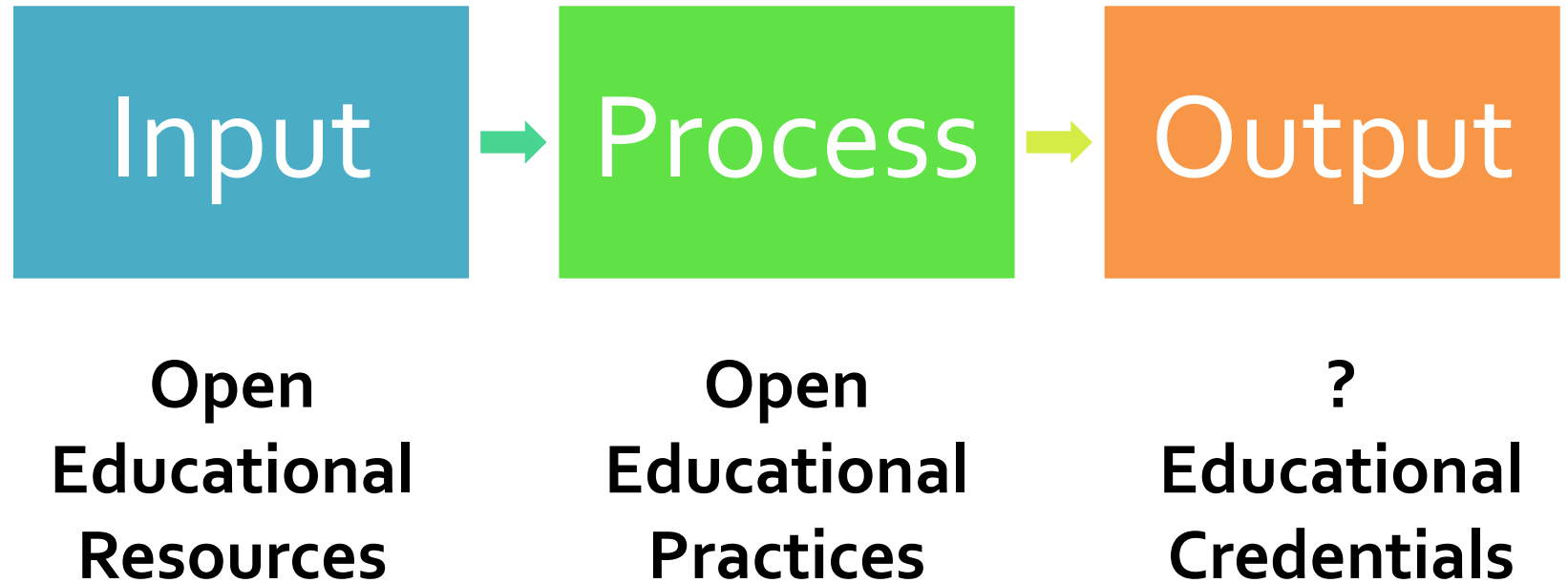
universal
automatic
seamless

Tips for Practitioners

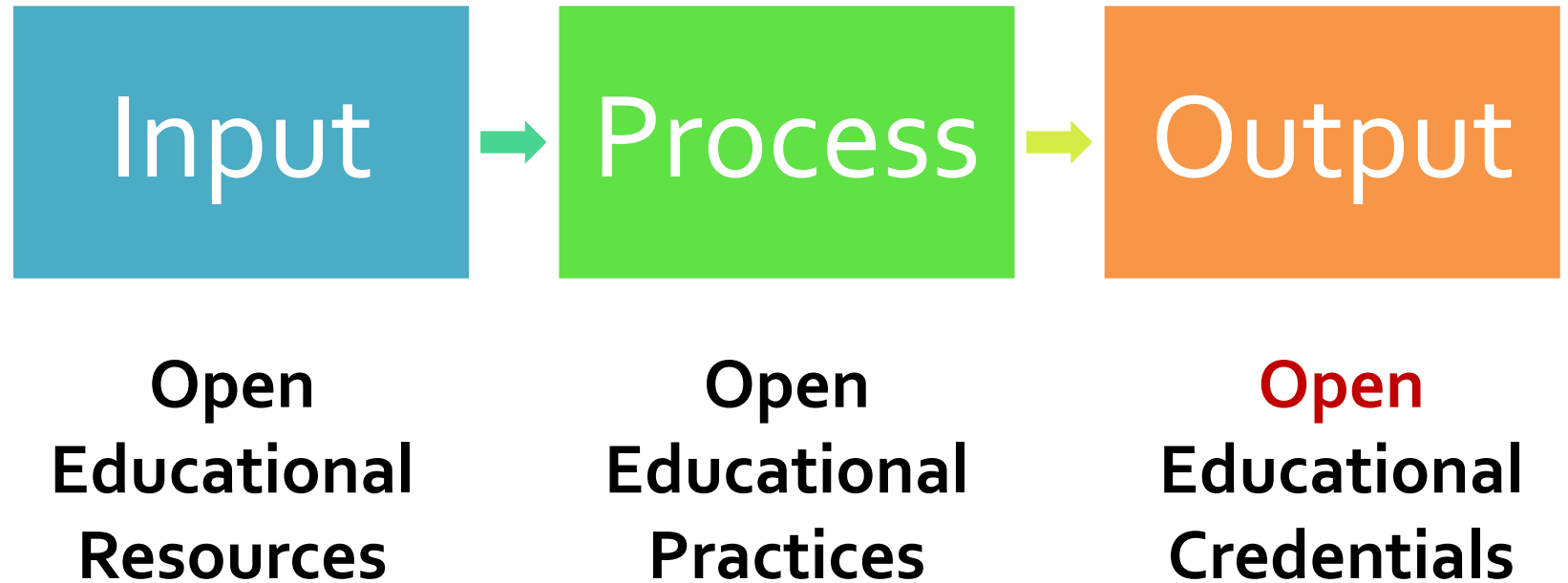
- Use learning outcomes in certificates
- Use secure certificates
- **Stay away** from proprietary certificate software

**stay tuned
for more developments...**

A typical
process model
for Open
Education



A typical
process model
for Open
Education



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Co-funded by the
Erasmus+ Programme
of the European Union