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Digitalisierung

## Digital Credential Strategies in Education (EN)

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### Work in Groups

#### I. STEP Analysis: influences on digital credentials

##### a. Sociological influences

- Heterogenous educational pathways: modern biographies not linear anymore; different institutions involved
- Modulisation of education: formal and informal learning
- Questions of inclusion / exclusion: certificates can be gained from everywhere; micro certificates cheaper than enrolling in full university program
- Digital lifestyles
- Badges increase visibility

##### b. Technological influences

- Persistence of institutions and technology (migration of technology is important)
- Authenticity: cryptography technology needed!
- Centralized vs. decentralized solutions? → trend towards decentralization
- Centralized registry needed which is reliable and trustworthy
- Is automated recognition trustworthy?
- What will be the influence of social media on the trustworthiness of digital certificates? Assumption that safety of communication on social media promotes trust in digital certificates.

##### c. Economic influences

- General question of the structure of the market?
- What is the economic value of a certificate?
- Is there a market for checking credentials? (→ students pay for it?)
- Who pays for the infrastructure and why?

##### d. Political influences

- New Europass (launch in May 2020): European digital credential infrastructure (→ political support and money!)
- Problem ECTS system only in Europe (→ question of trust)
- GDPR vs. Datenschutz (stricter in Germany!)



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**II. Success Factors for Digital Credentials** (measured value, measurement method, rhythm, person responsible for measurement)

*a. Sociological*

- Upward mobility
- Appreciation/acknowledgement of the labour market
- Number/frequency of demand of credentials (how often do individuals need them?)
- Formal and informal skills to be acknowledged (matter of negotiation)
- Responsible for measurement: user (portfolio management), issuer (transparency)
- Easy transfer of credentials, no manipulation
- Credentials create portrait of a person

*b. Technological*

- Acceptance and trust (measure: number of persons who acknowledge the certificate)
- Standards: technological, processes, contents
- Transparency (degree of technological security)
- Interfaces, resilience, fallback options
- Fragmentation (option to present selected degrees) vs. lifetime learning pathways (reputation, workload, duration)

*c. Economic*

- Societal value (à taxpayer pays for it): digital infrastructure cheaper than non-digital infrastructure à infrastructure cost as indicator
- Value for potential employers (à employers pay for it): matching skill sets to employers' demands à employability as indicator
- Value of AI-based analyses of credential databases?

*d. Political*

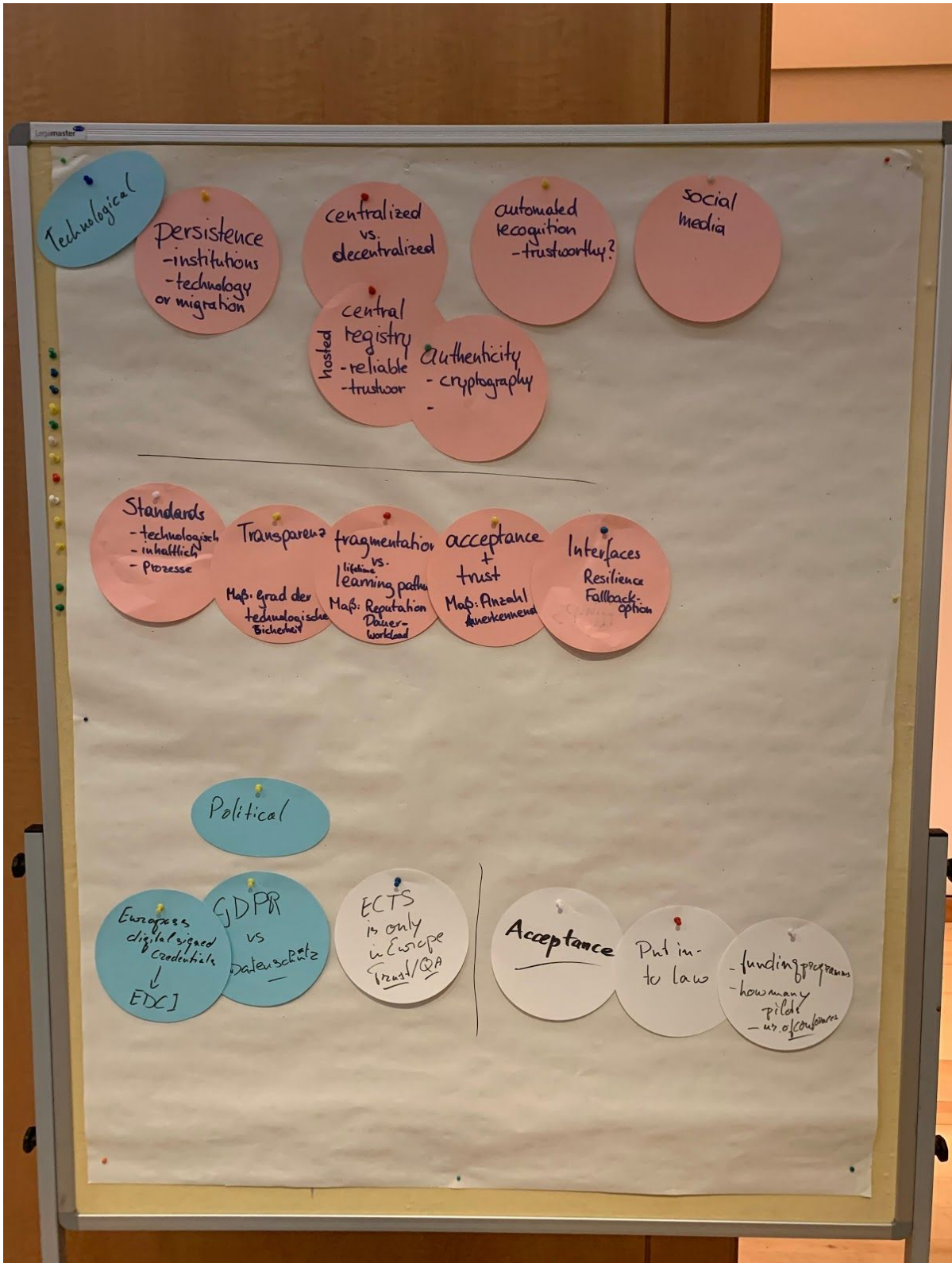
- Acceptance measured in terms of countries that put credentials into laws, funding programs, number of pilots, conferences...

Next steps for setting up an own credential program (wrap up)

Each institution needs to define its own demands and start to think about use cases → Advice: engage with students in the process of developing credentials and start to put pressure on the system (discussion on digital credentials has been going on for 20+ years, but progress is slow)



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**Sociological**

- HETEROGENE BILDUNGSLEISTUNGEN  
LERNBANKEN | INTELLEKTUELLE ARBEIT | MULTITASKING
- "BRICOLAGE" MODULARISIERUNG  
FORMAL | INFORMAL
- DIGITAL LIFESTYLE
- INTELLIGENZ  
- KREATIVITÄT  
- KOMPLEXITÄT  
- INKLUSION  
- EXKLUSION (EXKLUSION)
- SICHTBARKEIT

**Economics**

- Economic Value of edu Badges?
- Infrastructure  
- who pays?  
- why?
- Is there a Market for checking credentials?  
unassisted
- Micro-credentials  
value student ↔ employability society
- Societal Value vs. individual/employer value
- Value: Matching of Skills setting to employer's demand
- Credentials Infrastructure  
gains > costs (measurement)
- Measurement Values:  
- Employability A  
- Infrastructure costs  
- AI-based analysis

**Measurements**

- UPWARD MOBILITY
- APPRECIATION/ACKNOWLEDGEMENT LABOUR MARKET
- NUMBER OR FREQUENCY OF DEMAND OF DIG. CREDENTIALS
- FORMAL AGREED/FIXED  
INFORMAL NEGOTIABLE
- USER PORTFOLIO-MANAGEMENT  
ISSUER AUTHENTICITY/TRANSPARENCY
- EASY TRANSFER NO MANIPULATION
- CREDENTIALS PORTRAIT