

An increasing number of educational institutions worldwide are gaining experience with open badges: digital certificates that show the owner of the badge possesses certain skills or knowledge. In The Netherlands, SURF is developing an infrastructure with which Dutch educational institutions can issue *edubadges*. With this national approach, The Netherlands is one of the forerunners worldwide.

## MAKE KNOWLEDGE AND SKILLS TRANSPARENT

More and more people are embracing the philosophy of lifelong development. Being a student is no longer limited to a period of 4 or 5 years. Employees continue to develop their knowledge and skills throughout their career. The number of students attending courses or gaining experience at different institutions, both in their own country and abroad, is increasing. Edubadges are a great tool to make the knowledge gained and skills gathered at these different institutions, visible and portable. Students need to be able to share information about their knowledge and skills, without having to worry about their privacy or the sustained availability of the information. This will remain important for the

### 2 FLEXIBLE TRANSFER TO DIFFERENT EDUCATIONAL INSTITUTION

Higher education is becoming more flexible.

A growing number of institutions encourage their students to obtain a part of their education elsewhere, in addition to their alma matter. Many students pursue their master's degree at an institution other than where they gained their bachelor degree. With edubadges, they can prove what knowledge and skills they have gained. As the infrastructure will become available to all higher education institutions in The Netherlands, comparability of the badges across institutions is assured. This can help simplify the admission procedure of transferring students. Edubadges can also help in the transition from education to the job market. For employers it becomes easier to select candidates for specific knowledge or skills.

## 3 LESS WORK, SAME FREEDOM OF CHOICE FOR THE EDUCATIONAL INSTITUTION

Badges can be used for various purposes in higher education. An educational institution is free to choose for what purpose they want to issue edubadges, whether this is in the context of formal education or in a different context. SURF's infrastructure supports both purposes. The educational context in which the badge was issued, is visible in the metadata of the badge.

#### **MICROCREDENTIALING**

Microcredentialing - the division of regular formal education into smaller units - is a promising concept within accredited education. An edubadge can serve as a certificate for these units. The badge clearly shows the level and content of what the student has learned. Within the programme that issues the badge, the microcredential represents a certain number of credits. Ideally, national agreements create a system where microcredentials can be used elsewhere for students to gain exemption for certain required courses or credits.

### BADGES OUTSIDE OF THE FORMAL EDUCATION PROGRAMME

Edubadges can also be used as certificate outside the formal education programme. For example, consider a presentation skills course or participation in an Honours Programme.

# 4 PREVENTING PROLIFERATION AND ENSURING MEANINGFUL BADGES

The security and reliability of badges is paramount. This is why SURF chooses to offer an infrastructure that offers storage and management of the badges. This allows institutions to issue badges effectively and efficiently, whilst helping prevent proliferation. SURF coordinates identification of requirements educational institutions have for edubadges and organises the provision of a matching technological infrastructure. An infrastructure that offers educational institutions the freedom to make their own choices within a standardised system of badges.

#### 5 AUTHENTICATION, VERIFICATION, AND PRIVACY WELL ORGANISED

In order to make edubadges a success, authentication and verification need to be properly regulated. These elements contribute to determining whether the badges represent good value for institutions and employers. Badge owners and users want to be sure the badges are genuine and need to be able to verify the issuing party. This requires coordination between all educational institutions. SURF ensures this through the infrastructure: every badge issued can be verified for authenticity with a single mouse-click. In order to last a lifetime, badges should ideally be linked to an authentication system that remains available after graduation. To ensure this, SURF is experimenting with linking edubadges to a new 'identity' that transcends institutions edulD. Privacy is also important: badges have to be GDPR compliant, and the owner should always be in control of their data. For this purpose, the system requires the owner to grant permission to use their personal data to be able to issue a badge.

## 6 ALIGNMENT TO INTERNATIONAL STANDARDS

SURF will provide the edubadges infrastructure to Dutch educational institutions. However, it goes without saying that students and institutions are active in an international (educational) world. Therefore, it is important that Dutch edubadges are compatible with badges issued elsewhere. Thanks to the use of the open badges standard, students will be able to collect multiple badges and display them in a presentation environment.

In terms of content, SURF ensures that the edubadges contain the key information we have agreed on in the European bachelor-master system. This includes the number of credits (ECTS) and a description of the learning outcomes achieved. SURF is also in close contact with the Europeass project of the European Commission, where they are working on a similar initiative in a European context.

### 7 EASIER COLLABORATION THANKS TO OPEN SOURCE

SURF strives to always apply open source technology and to promote its use to make cooperation easier and avoid supplier dependency. For edubadges, SURF has opted for the technology of <u>Badgr</u> – the only technology partner working on open source when the edubadges project started. The advantage is that the development work SURF carries out, also becomes available to others, and vice versa.

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#### More information:

www.surf.nl/edubadges

