ICDL- The Truly Global Digital Skills Standard

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Regional Development Manager.
Europe and Arab States

Budapest, March 05, 2020
Changing nature of work

Digital technology in all workplaces

1997

2020

Cloud | Mobile | Social
90% of jobs will require some level of digital skills

European Commission
Digital skills of the workforce

Digital adoption limited by lack of digital skills

In 2017, 10% of the EU labour force had no digital skills, mostly because they did not use the internet. 35% did not have at least basic digital skills, which are now required in most jobs.
Following a report of May 2014, DG CONNECT and the Eurostat Information Society Working Group agreed to create and publish a "Digital Skills Indicator" based on the Digital Competence Framework (developed by JRC and DG EAC, and available for self-assessment on the Europass website), and to be populated with data collected through the ICT survey on ICT usage by Households and Individuals.

The framework identifies five competence domains: information, communication, content creation, safety and problem solving. The ICT survey collects information about activities realised during the previous 2 months by internet and computer users covering four of the five domains (the safety domain is not covered as adequate indicators this domain are not yet available within the survey). It is assumed that persons having realised certain activities have the corresponding skills.

The nature of the ICT survey doesn't allow investigating proficiency levels for each activity performed. However, for each of the four domains, a set of activities have been selected (between 4 and 7), to reflect the competences outlined within each domain of the Digital Competence Framework, with the purpose of discriminating between people having, or missing, the basic skills. When there is evidence about the variety of tasks accomplished or about their complexity, a flag “above basic” is also attributed. Once these three levels of skills ("none", "basic" and "above basic") are computed for each of the four dimensions, an overall composite indicator is computed following a similar logical approach.

Survey methodology

Digital Skills Indicator – derived from Eurostat survey on ICT usage by Individuals

Methodological note - 2015

Recognising the crucial role of digital competence in today’s society, the European Commission’s 2010 Digital Agenda for Europe devoted a whole pillar to digital literacy, skills and inclusion. Furthermore, recognising the need for indicators to measure the extent of digital competence in Europe, one of the actions of the Digital Agenda was to ‘propose by 2013 flexible indicators of digital competence and media literacy’ (Action 62).

Following a report of May 2014, DG CONNECT and the Eurostat Information Society Working Group agreed to create and publish a ‘Digital Skills Indicator’ based on the Digital Competence Framework (developed by JRC and DG EAC, and available for self-assessment on the Europass website), and to be populated with data collected through the ICT survey on ICT usage by Households and Individuals.

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Perception and reality

Perception & Reality
MEASURING DIGITAL SKILLS GAPS IN EUROPE, INDIA AND SINGAPORE

CEPI Opinion — Accurate Measurement of Digital Competence

ICDL Foundation — icdl.org
New Digital Divide

Economic divide among people and among organisations

Digital Lifestyle Skills

Digital Workplace Skills
Pace of digital adoption
European experience

Adoption of digital technologies, EU (% enterprises)

Desi Report 2019 – Integration of Digital Technology (source: Eurostat)
## Changing nature of work

### Top 10 Emerging

1. Data Analysts and Scientists
2. AI and Machine Learning Specialists
3. General and Operations Managers
4. Software and Applications Developers and Analysts
5. Sales and Marketing Professionals
6. Big Data Specialists
7. Digital Transformation Specialists
8. New Technology Specialists
9. Organisational Development Specialists
10. Information Technology Services

**Emerging roles, global change by 2022**

**133 Million**

### Top 10 Declining

1. Data Entry Clerks
2. Accounting, Bookkeeping and Payroll Clerks
3. Administrative and Executive Secretaries
4. Assembly and Factory Workers
5. Client Information and Customer Service Workers
6. Business Services and Administration Managers
7. Accountants and Auditors
8. Material-Recording and Stock-Keeping Clerks
9. General and Operations Managers
10. Postal Service Clerks

**Declining roles, global change by 2022**

**75 Million**

Changing nature of work

Ratio of human-to-machine working hours, 2018 v 2022 (projected)

Figure 5: Ratio of human-machine working hours, 2018 vs. 2022 (projected)

ECDL Programme 1999
(Courtesy of www.waybackmachine.org!)

Welcome to The ECDL/ICDL Website, The portal site for ECDL / ICDL Certification.
Please click on the links available to reach our European and International Member Countries.

European Computer Driving Licence Syllabus Version 3.0
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1. Introduction
1.1 The European Computer Driving Licence
1.2 Objectives of the ECDL
1.3 Benefits of the ECDL
1.4 ECDL Target Population
1.5 Level of Difficulty
1.6 The ECDL Standard
1.7 ECDL Syllabus Version 3.0 Implementation
1.8 Evolution in Syllabus Version 3.0
1.9 The ECDL Modules

2. Description Of The Modules
2.1 Module 1 - Basic Concepts of Information Technology (IT)
2.2 Module 2 - Using the Computer and Managing Files
2.3 Module 3 - Word Processing
2.4 Module 4 - Spreadsheets
2.5 Module 5 - Database
2.6 Module 6 - Presentation
2.7 Module 7 - Information and Communication
Celebrating 20 Years → ICDL Global Strategy
ICDL Programme

School

Primary  Secondary  Higher

Vocational Community Corporate

Workplace

ICDL for All
Product

Programme structure

School

Primary | Secondary | Higher

Workplace

Vocational Community Corporate

ICDL DIGITAL STUDENT
Digital skills to design and develop, share and protect

ICDL WORKFORCE
Digital skills for employability and productivity

ICDL PROFESSIONAL
Digital skills for occupational effectiveness

ICDL DIGITAL CITIZEN
Digital skills to connect and transact, explore and inform
ICDL Programmes

ICDL WORKFORCE
Digital skills for employability and productivity

ICDL PROFESSIONAL
Digital skills for occupational effectiveness

ICDL INSIGHTS
Digital understanding for business managers

ICDL DIGITAL STUDENT
Digital skills to design and develop, share and protect

ICDL DIGITAL CITIZEN
Digital skills to connect and transact, explore and inform
Identity
Programme identity

ICDL
DIGITAL STUDENT
Digital skills to design and develop, share and protect

ICDL WORKFORCE
Digital skills for employability and productivity

ICDL PROFESSIONAL
Digital skills for occupational effectiveness

ICDL
DIGITAL CITIZEN
Digital skills to connect and transact, explore and inform.
ICDL The Digital Skills Standard

Global Social Enterprise

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<table>
<thead>
<tr>
<th>Country</th>
<th>Number of all ICDL candidates</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>3,019,122</td>
</tr>
<tr>
<td>Italy</td>
<td>2,556,652</td>
</tr>
<tr>
<td>Egypt</td>
<td>1,857,702</td>
</tr>
<tr>
<td>Austria</td>
<td>804,424</td>
</tr>
<tr>
<td>Ireland</td>
<td>666,300</td>
</tr>
<tr>
<td>Greece</td>
<td>612,009</td>
</tr>
<tr>
<td>Germany</td>
<td>579,238</td>
</tr>
<tr>
<td>Hungary</td>
<td>508,570</td>
</tr>
<tr>
<td>Sweden</td>
<td>446,579</td>
</tr>
<tr>
<td>South Africa</td>
<td>359,273</td>
</tr>
</tbody>
</table>
ACCA Southeast Asia
Contextualised modules for students and

ACCA Singapore
ACCA Malaysia
ACCA Vietnam
New digital skills for professionals | contextualised modules for legal industry
SIEMENS PLM Asia
3D Design module for students

National Centre for Educational Technology

Solid Edge 2019

Train-the-trainer
Nanjing Vocational Colleges
ECDL and the European Commission
France

> ECDL is the only digital literacy qualification listed on National Interprofessional List (LNI) by French National Interprofessional Joint Committee on Employment and Training (COPANEF).

> Since January 2015, French employees have been able to use their CPF (personal training account) hours for ECDL training and certification. The number of CPF hours are assigned to French employees based on years of employment and allow them to acquire any approved professional training for free.
> Since 2010, ECDL has been recognized by Ministry of Education as equivalent to Baccalaureate test in digital literacy. Students have the choice to pass the traditional state exam at school or benefit from the opportunity of having ECDL an international qualification.

> Since 2010, over 50,000 high school students validated the digital literacy exam at the Baccalaureate by obtaining the ECDL Certificate.
Since 2010, ECDL is the only digital skills certification which is explicitly mentioned in the guidelines published for funding perspective 2014-2020 by the Polish Ministry of Education. The guidelines describe qualifications that can be used in the projects funded from Polish allocation of European Social Funds ESF.

ECDL projects financed from ESF in Poland brought more than 40,000 candidates in 2014.
Presenting ICDL as a truly international certification

ICDL IN NATIONAL QUALIFICATIONS FRAMEWORKS AROUND THE WORLD

SEVERAL EXAMPLES IN DETAIL

United Kingdom
- The QCF is mapped to the Regulated Qualifications Framework (RQF), which replaced the Qualifications & Credit Framework and the National Qualifications Framework in October 2015.
- Responsible Body: The Office of Qualifications and Examinations Regulation (Ofqual)
- Mapping Details:
  - BCS Level 1 Award in IT User Skills (ECDL Essentials) is mapped to RQF Level 2; BCS Level 2 Certificate in IT User Skills (ECDL Extra) is mapped to RQF Level 3.

Malta
- The MFQ has been mapped to the Malta Qualifications Framework since 2010.
- Responsible Body: The National Commission for Further and Higher Education (NCFEHE)
- Process: ECIL Malta approached the Malta Qualifications Council in 2010 to start the referencing process with the MFQ. The following criteria were taken into account: the structure of this international qualification; the syllabus; the learning outcomes; and learning and assessment methods.
- Mapping Details:
  - ECDL Basic is mapped to MFQ Level 2, ECDL Standard is mapped to MFQ Level 3, and ECDL Advanced is mapped to MFQ Level 4. ECDL certificates in Malta carry the MQF Accreditation Quality Label and referencing.

Singapore
- The NQF since 2011, the ICDL programme has been mapped to the Workforce Skills Qualification (WSQ) Employability Skills ICT Framework.
- Responsible Body: The mapping has been carried out and recognised by the Workforce Development Agency (WDA).
- Process: WDA consultants constructed the national digital competence standard based on the ICDL syllabus. They recognised ICDL as covering a general skillset, applicable to all industries and sectors, in other words, a foundational competence.
- Mapping Details:
  - All 18 ICDL modules were mapped to the WSQ Framework. ICDL modules fall under 'Level 1: WSQ Certificate' and 'Level 3: WSQ Advanced Certificate'.

Malta
- The NFQ has been mapped to the Malta Qualifications Framework since 2010.
- Mapping Details:
  - BCS Level 1 Award in IT User Skills (ECDL Essentials) is mapped to NFQ Level 2; BCS Level 2 Certificate in IT User Skills (ECDL Extra) is mapped to NFQ Level 3; BCS Level 3 Certificate in IT User Skills (ECDL Advanced) is mapped to NFQ Level 3.

Vietnam
- ICDL has been recognised as a qualified IT standard in Vietnam since November 2015 under Circular 03/2011/BTTTT of the Ministry of Information and Communication.

Australia
- ICDL is mapped to the Australian Qualifications Framework and the Queensland Certificate of Education. The intended target audience is vocational education.
A Global Framework of Reference on Digital Literacy Skills for Indicator 4.4.2
| Digital literacy frameworks | 0 | 1 | 1.1 | 1.2 | 1.3 | 2 | 2.1 | 2.2 | 2.3 | 2.4 | 2.5 | 3 | 3.1 | 3.2 | 3.3 | 3.4 | 4 | 4.1 | 4.2 | 4.3 | 4.4 | 4.5 | 5 | 5.1 | 5.2 | 5.3 | 5.4 | 5.5 | Total |
|---------------------------|---|---|-----|-----|-----|---|-----|-----|-----|-----|-----|---|-----|-----|-----|-----|---|-----|-----|-----|-----|---|-----|-----|-----|-----|-----|-----|
| Kenya Basic Education Curriculum Framework | 5 | 2 | 4 | 3 | 5 | 2 | 3 | 2 | 2 | 2 | 2 | 6 | 38 |
| Philippines ALS-K to 12 LS 6 | 7 | 19 | 1 | 6 | 3 | 4 | 1 | 4 | 2 | 19 | 4 | 3 | 4 | 1 | 5 | 5 | 3 | 6 | 98 |
| India Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) | 1 | 4 | 2 | 1 | 1 | 1 | 1 | 1 | 12 |
| Costa Rica Student Performance Standards in Digital Technology-enhanced Learning | 15 | 4 | 4 | 4 | 6 | 1 | 10 | 5 | 11 | 1 | 10 | 8 | 3 | 2 | 1 | 1 | 1 | 3 | 13 | 107 |
| Chile SIMCE TIC Matrix of ICT Skills for Learning | 2 | 2 | 2 | 1 | 3 | 1 | 1 | 1 | 14 |
| British Columbia Digital Literacy Framework | 8 | 1 | 3 | 4 | 1 | 5 | 3 | 2 | 4 | 2 | 7 | 5 | 6 | 3 | 5 | 4 | 1 | 3 | 4 | 8 | 1 | 4 | 5 | 2 | 3 | 2 | 106 |
| IC3 Global Standard 5 | 16 | 16 | 1 | 14 | 5 | 3 | 2 | 1 | 14 | 2 | 1 | 1 | 1 | 5 | 4 | 3 | 1 | 1 | 1 | 3 | 94 |
| ICDL Competences | 21 | 22 | 5 | 19 | 1 | 5 | 2 | 4 | 3 | 1 | 41 | 10 | 2 | 3 | 2 | 8 | 6 | 3 | 1 | 2 | 12 | 4 | 177 |
| Microsoft: Digital Literacy Standard Curriculum Version 4 | 15 | 13 | 1 | 5 | 1 | 1 | 10 | 3 | 1 | 5 | 2 | 1 | 7 | 2 | 67 |
| Total no. of instances mapped | 88 | 1 | 93 | 20 | 53 | 11 | 23 | 18 | 9 | 17 | 22 | 9 | 0 | 107 | 16 | 21 | 16 | 25 | 27 | 22 | 2 | 6 | 7 | 3 | 14 | 46 | 12 |

Note: Under-scored competence areas (0 and 6) are proposed additions to the existing DigComp 2.0 competence areas and competences.
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There is a substantial overlap between DigComp and ECDL modules, contributing to the development of the same DSC areas.

FIGURE 3.3 MAPPING ECDL WITH DIGCOMP DIGITAL COMPETENCES

<table>
<thead>
<tr>
<th>DigComp Area</th>
<th>DigComp Competences</th>
<th>ECDL Modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information and Data Literacy</td>
<td>Reading, searching and finding data, information and digital content</td>
<td>Managing digital data, information and digital content</td>
</tr>
<tr>
<td>Communication and Collaboration</td>
<td>Interacting through digital technologies</td>
<td>Collaborating through digital technologies, Managing digital data</td>
</tr>
<tr>
<td>Digital Content Creation</td>
<td>Creating digital content</td>
<td>Creating digital content, Copyright and licences, Programming</td>
</tr>
<tr>
<td>Safety</td>
<td>Protecting personal data and privacy</td>
<td>Protecting personal data and privacy</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>Solving problems</td>
<td>Solving problems</td>
</tr>
</tbody>
</table>

(Based: http://icdl.org/ICDLCertification)

To date, more than 14 million people have engaged with the ECDL programme through a network of over 24,000 ECDL-accredited test centres in over 120 countries, including several partner countries.

For example, in Montenegro an EU project established the ECDL standard level as a reference for basic digital skills and competence for all learners, and the ECDL advanced level as a reference for ICT teachers.

Source: http://icdl.org

ICDL Foundation — icdl.org

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The Digital Skills Standard
ESCO – quality assurance measures

1. Use of internationally recognized standards
2. Quality audit conducted by the organisation itself (‘internal audit’)
3. Quality audit conducted by an external body (‘external audit’)
4. Implementation of assessment procedures based on learning-outcomes
5. Clearly defined assessment or certification criteria
6. Accreditation of affiliated training or test centres
7. Accreditation by an awarding body
8. Accreditation of assessors or examiners
9. Periodical review and update of the qualification

<table>
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<tr>
<th>Qualifications</th>
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<th>6</th>
<th>7</th>
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<tr>
<td>EuroAspire &amp; Aspire2Create qualifications</td>
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<td>European Advertising Certificate (European Association of Communication Agencies)</td>
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<td>European Care Certificate (EASPD ECC)</td>
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<td>European Certificate for Psychotherapy (ECP)</td>
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<td>European Coaching Licence (EuCF)</td>
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<td>European Federation for Welding, Joining and Cutting’s international harmonized system for training, qualification and certification</td>
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Thank you – jakub.christoph@icdleurope.org