وزارة التنمية الاجتماعية والأسرة
Ministry of Social Development and Family
State of Qatar • دولة قطر

mada
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نفاذ رقمي للجميع

D1
D2
D3
D4
D5
D6

Mada ICT-AID
Competency Framework

Mada ICT accessibility and inclusive design (ICT-AID) competency framework describes all the relevant ICT accessibility competencies and capabilities required for students, teachers, and professionals to use and develop accessible products, contents, and services.

The framework features six domains of competencies, each domain covers a set of competencies, each of which is broken down into capabilities, required to apply, evaluate, and remediate digital accessibility in compliance with accessibility standards and best practices.

Mada ICT-AID Competency Framework can be used as a tool to guide professional education services, universities and individuals on delimiting the required relevant competencies in ICT accessibility, and fostering the integration of ICT Accessibility in education curricula and training programmes. The framework can be also adapted for use in different learning contexts and modes, and availed to develop, describe, and publish ICT-AID aligned resources in courseware repositories.

Mada framework is featured as an education standard available to users of the Open Educational Resources OER Commons digital library and collaboration platform. As such, the framework can be used to index, align, and search OER providing accordingly ease of access and retrieval of these resources, serving globally learners and educators.

For more information,
Please visit: ictaid.mada.org.qa
or email us at: academy@mada.org.qa

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Competency Domains	Competencies
Becoming familiar with Disability and Accessibility	**D1.1** Distinguishing theoretical Models of Disability
	D1.2 Recognizing the major types of Disabilities and their impact on lives of PWDs
	D1.3 Demonstrating Understanding of Accessibility
	D1.4 Describing and following disability etiquette guidelines for interacting with PWDs
Describing the legal landscape of Disability and Accessibility	**D2.1** Describing the legal landscape of Disability and Accessibility
	D2.2 Recognizing key ICT Accessibility regulations, policies and best practices
	D2.3 Identifying ICT Accessibility standards
	D2.4 Integrating ICT Accessibility across the organization
Making a sense of Universal Design	**D3.1** Describing the Universal Design paradigm
	D3.2 Demonstrating understanding of Universal Design for Learning
Creating Accessible Digital Content	**D4.1** Creating Accessible Digital Content
	D4.2 Creating Accessible Word-processing documents
	D4.3 Creating Accessible Presentation documents
	D4.4 Creating Accessible PDF documents
	D4.5 Generalizing Accessibility considerations for different multimedia formats
Creating Accessible Web Content	**D5.1** Creating Accessible Web Content
	D5.2 Designing and creating web content in accordance with the W3C Accessibility specifications
	D5.3 Testing and evaluating Web Accessibility
	D5.4 Remediating inaccessible Web documents
Making Digital Environments and Platforms Accessible	**D6.1** Identifying and applying the basic principles of Mobile Applications Accessibility
	D6.2 Evaluating Mobile Applications Accessibility
	D6.3 Identifying Accessibility considerations for improved game Accessibility
	D6.4 Ensuring the Accessibility of emerging digital technologies

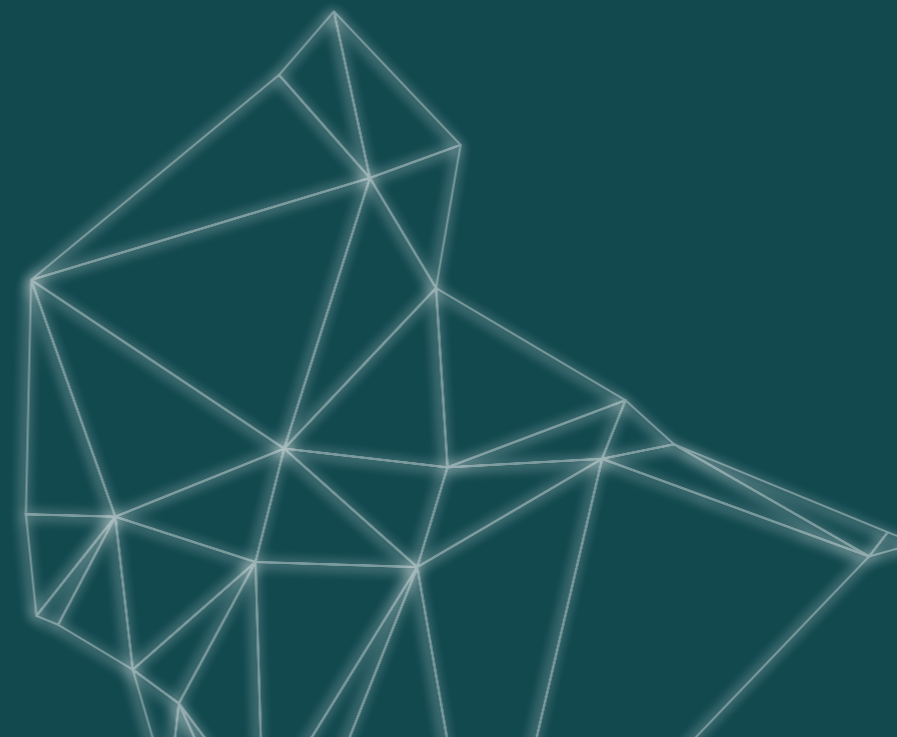| Competency Domains	Capabilities
D1.1 Distinguishing theoretical Models of Disability	**1.** Identifying prominent theoretical models of disability
	2. Describing Models' characteristics and understanding their strengthens and weaknesses
	3. Defining Disability on your own words
D1.2 Recognizing the major types of Disabilities and their impact on lives of PWDs	**1.** Identifying basic categories of Disabilities and related demographic
	2. Naming main characteristics of disabilities and associated barriers
	3. Distinguishing how PWDs are impacted by different technologies
D1.3 Demonstrate Understanding of Accessibility	**1.** Describing the broad scope of Accessibility and technology
	2. Identifying Benefits of Accessibility
	3. Defining ICT Accessibility (and related terminology) on your own words
	4. Exploring Accessibility barriers and Accessibility solutions
	5. Identifying the use and application of AT and adapted Strategies
	6. Identifying key professional organizations and networks in the area of Accessibility
	7. Discussing your role in promoting digital inclusion through ICT
D1.4 Describing and following disability etiquette guidelines for interacting with PWDs	**1.** Identifying major misconceptions or stereotypes about PWDs
	2. Applying disability etiquette to different life settings
	3. Determining what your contributions could be to the Disability and ICT Accessibility movement

Competency Domain D2.
Describing the legal landscape of Disability and Accessibility

Competency Domain D3.
Making a sense of Universal Design

Competency Domains	Capabilities
D2.1 **Identifying and characterizing main Laws, Declarations and Conventions on Human Disability Rights**	**1.** Naming the most prominent international declarations and conventions for the rights of PWDs
	2. Describing the place of ICT Accessibility in the Sustainable Development Goals (SDG) of the United Nations
	3. Identifying the major National and International Accessibility laws and the legal landscape for people with disabilities
	4. Recognizing some key specific domains laws on Human Disability Rights
D2.2 **Recognizing key ICT Accessibility regulations, policies and best practices**	**1.** Reviewing examples of specific domains policies on Accessibility
	2. Naming prominent examples of Accessibility laws and regulations applied to ICT
	3. Reviewing examples of ICT Accessibility policies and best practices
D2.3 **Identifying ICT Accessibility standards**	**1.** Exploring major examples of ICT Accessibility Standards and Guidance
	2. Listing the W3C Web Accessibility Initiative (WAI) Accessibility standards
	3. Explaining the guiding principles of web Accessibility
	4. Identifying potential ICT Accessibility features and barriers
	5. Demonstrating understanding of checking ICT Accessibility in compliance with standards
D2.4 **Integrating ICT Accessibility across the organization**	**1.** Describing the place of ICT Accessibility in the national and the United Nations frameworks
	2. Identifying potential Accessibility issues in workplace
	3. Discussing planning and managing Accessibility
	4. Achieving ICT accessibility through public procurement
	5. Describing how to develop and update Accessibility policies, strategies and best practices for organizations

Competency Domains	Capabilities
D3.1 **Describing the Universal Design paradigm**	**1.** Demonstrating understanding of Diversity and Inclusion
	2. Defining Universal Design in your own words
	3. Naming the seven principles of Universal Design
	4. Describing the goals and benefits of Universal Design
	5. Distinguishing between Accessibility , Usability, and Universal Design concepts
	6. Knowing the difference between Universal Design and Accommodations
D3.2 **Demonstrating understanding of Universal Design for Learning**	**1.** Describing the Universal Design for Learning concept
	2. Demonstrating understanding of Open Education, Open Educational Resources, and Inclusive Education
	3. Describing why UDL matters in today's classrooms
	4. Identifying the benefits of Universal Design for Learning
	5. Identifying and describing the three core principles of UDL
	6. Making a sense of key concepts of the UDL Guidelines
	7. Developing a basic understanding on how to use the UDL guidelines in course design

Competency Domain D4.
Creating Accessible Digital Content

Competency Domains	Capabilities
D4.1 **Identifying major Accessibility considerations to common digital formats**	**1.** Identifying potential Accessibility issues in digital materials
	2. Recognizing some key Accessibility considerations that apply to common digital formats
	3. Exploring some alternatives to implement in a remediation context
D4.2 **Creating Accessible word-processing document**	**1.** Identifying and applying the basic principles of logical structure in Word-processing documents
	2. Identifying and applying visual styling Accessibility considerations in Word-processing documents
	3. Auditing and evaluating Accessibility in Word-processing documents
	4. Identifying the limitations of automated testing in Word-processing documents
	5. Performing tests with Assistive Technology for Word-processing documents
	6. Implementing alternative text or text equivalents in a remediation context of Word-processing documents
	7. Creating Word-processing documents Accessibility requirements checklist
	8. Examining and remediating inaccessible Word-processing documents
	9. Reviewing best practices for creating accessible Word-processing documents

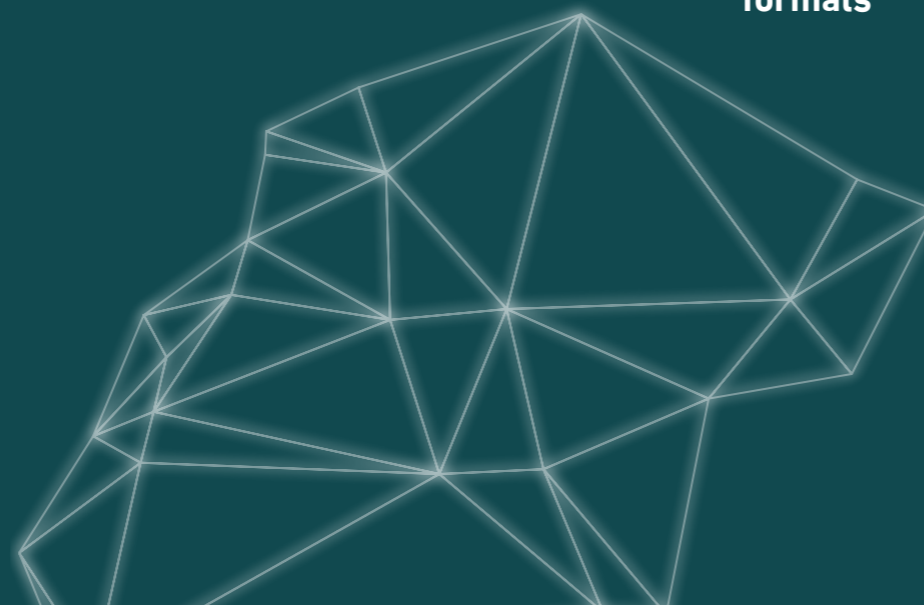|	
D4.3 **Creating Accessible Presentation documents**	**1.** Identifying and applying the basic principles of logical structure in Presentation documents
	2. Identifying and applying visual styling Accessibility considerations in Presentation documents
	3. Auditing and evaluating Accessibility in Presentation documents
	4. Identifying the limitations of automated testing in Presentation documents
	5. Performing tests with Assistive Technology for Presentation documents
	6. Implementing alternative text or text equivalents in a remediation context of Presentation documents
	7. Creating Presentation documents Accessibility requirements checklist
	8. Examining and remediating inaccessible Presentation documents
	9. Reviewing best practices for creating Presentation documents
D4.4 **Creating Accessible PDF documents**	**1.** Identifying Accessibility considerations before converting a document to PDF
	2. Identifying Characteristics of Accessible PDF files
	3. Using the Accessibility Checkers to evaluate Accessibility in PDF files
	4. Creating PDF Accessibility requirements checklist
	5. Examining and remediating inaccessible PDF files
	6. Reviewing guidelines and best practices to support the creation of Accessible PDF files from authoring applications
D4.5 **Generalizing Accessibility considerations for different multimedia formats**	**1.** Accessibility issues in multimedia content
	2. Recognizing some key Accessibility considerations that apply to different multimedia formats
	3. Making Audio and Video Media Accessible
	4. Captioning and describing videos
	5. Adding captions to Web hosted videos
	6. Creating Accessible complex images
	7. Creating Accessible Animations
	8. Creating Accessible STEM content
	9. Examining and remediating inaccessible multimedia files
	10. Reviewing guidelines and best practices to support the creation of Accessible Multimedia files

Competency Domains

Capabilities

D5.1
Demonstrating understanding of Web Accessibility

1. Guiding principles of web Accessibility

2. Recognizing Accessibility specifications for Web content

3. Identifying major features of HTML Accessibility

4. Reviewing the essential components of web Accessibility

5. Discussing approaches towards ensuring Web Accessibility

6. Examining Accessibility in Web content

D5.2
Designing and creating web content in accordance with the W3C Accessibility specifications

1. Understanding and interpreting Web Content Accessibility Guidelines (WCAG)

2. Understanding and interpreting Authoring Tool Accessibility Guidelines (ATAG)

3. Understanding and interpreting User Agent Accessibility Guidelines (UAAG)

4. Understanding and interpreting Accessible Rich Internet Applications (WAI-ARIA)

5. Reviewing and summarizing guidelines, principles and techniques for designing and creating Web accessible solutions

6. Identifying and applying principles of logical structure and semantics in Web documents

7. Describing requirements for providing users with a good way to navigate and interact with Web content

8. Identifying and applying visual styling Accessibility considerations in Web documents

9. Identifying and applying Accessibility supported technologies

10. Creating interactive controls/widgets

11. Creating accessible single-page applications

12. Creating web content that is compatible with the PWDs common strategies to accessing web content

13. Integrating Accessibility into the quality assurance process

14. Reviewing guidelines and best practices to support Web Accessibility

Competency Domains

Capabilities

D5.3
Testing and evaluating Web Accessibility

1. Identifying potential Accessibility issues in Web documents

2. Identifying Interoperability and compatibility issues

3. Determining conformance to Accessibility specifications based on Accessibility issues found

4. Testing for end-user impact

5. Using assistive Technology to test Web Accessibility

6. Identifying major tools for auditing and evaluating Web Accessibility

7. Identifying the limitations of automated testing

8. Creating Web Accessibility requirements checklist

9. Examining inaccessible Web documents based on the Web Accessibility requirements checklist

10. Reviewing best practices for designing and creating accessible Web documents

D5.4
Remediating inaccessible Web documents

1. Identifying and classifying Web Accessibility issues and user Impact

2. Analyzing Cost-Benefit and potential risks

3. Determining required actions and efforts associated with Issue Remediation

4. Prioritizing Accessibility issues based on the level of severity

5. Developing remediation strategy and action plan

6. Applying the remediation plan

7. Implementing alternative options in a remediation context

8. Reviewing strategies and/or techniques for fixing Accessibility issues

English

Competency Domains	Capabilities
D6.1 Identifying and applying the basic principles of Mobile Applications Accessibility	1. Demonstrating understanding of Mobile Applications design and development
	2. Identifying potential Accessibility issues in Mobile Applications
	3. Identifying Interoperability and compatibility issues in Mobile Applications
	4. Describing Mobile Accessibility Platform Features
	5. Understanding and interpreting WAI's Accessibility standards addressing mobile Accessibility
	6. Reviewing and summarizing guidelines, principles and techniques for Mobile Applications Accessibility
	7. Identifying and applying Accessibility supported mobile technologies
	8. Reviewing Accessible Mobile Web Application Best Practices
	9. Identifying and applying Accessibility considerations in Mobile Applications
D6.2 Evaluating Mobile Applications Accessibility	1. Determining conformance to mobile applications Accessibility specifications
	2. Using assistive Technology to test Mobile Apps Accessibility
	3. Identifying major tools for auditing and evaluating Mobile Apps Accessibility
	4. Synthesizing testing Checklist for Mobile Apps Accessibility
	5. Examining inaccessible Mobile Apps based on the Mobile Accessibility requirements checklist
	6. Developing design guidance and mobile Web Accessibility best practices
D6.3 Identifying Accessibility considerations for game Accessibility	1. Recognizing major barriers to access Video games in relation to specific type of impairments
	2. Identifying Accessibility issues in the games' design and implementation
	3. Identifying Accessible game categories
	4. Recognizing modified video game controllers for improved game Accessibility
	5. Identifying major approaches used to address Accessibility in games
	6. Reviewing and summarizing guidelines, strategies and techniques for game Accessibility
D6.4 Ensuring the Accessibility of emerging digital technologies	1. Defining XR and immersive environments
	2. Demonstrating understanding of XR and Accessibility Challenges
	3. Identifying major Accessibility issues in XR and immersive environments
	4. Recognizing various Accessibility related user needs and requirements for XR
	5. Reviewing approaches and Accessibility requirements supporting XR Accessibility user needs
	6. Making a sense of accessibility requirements for future digital technologies

العربية

الكفاءات	القدرات
D6.1 تحديد وتطبيق المبادئ الأساسية لنفاذية تطبيقات الجوال	1. التعرف على المفاهيم الأساسية لتصميم وتطوير تطبيقات الجوال
	2. تحديد مشكلات النفاذ المحتملة في تطبيقات الجوال
	3. تحديد مشكلات التوافق والتشغيل البيني في تطبيقات الجوال
	4. وصف خصائص النفاذ الأساسية لمنصات الجوال
	5. تفسير معايير النفاذ الخاصة بالجوال
	6. مراجعة وتلخيص الإرشادات والمبادئ والتقنيات الخاصة بنفاذية تطبيقات الجوال
	7. تحديد وتطبيق تكنولوجيا الجوال الداعمة للنفاذ الرقمي
	8. مراجعة أفضل الممارسات لنفاذية تطبيقات الجوال
	9. تحديد اعتبارات النفاذ وتطبيقها في تطبيقات الجوال
D6.2 تقييم نفاذية تطبيقات الجوال	1. تحديد توافق تطبيقات الجوال مع مواصفات النفاذ
	2. استخدام التكنولوجيا المساعدة لاختبار نفاذية تطبيقات الجوال
	3. تحديد الأدوات الرئيسية لمراجعة وتقييم نفاذية تطبيقات الجوال
	4. استخلاص قائمة التحقق لنفاذية تطبيقات الجوال
	5. فحص ومراجعة تطبيقات الجوال الغير قابلة للنفاذ الرقمي استنادا إلى قائمة التحقق
	6. تطوير إرشادات التصميم وأفضل الممارسات لنفاذية تطبيقات الجوال
D6.3 تحديد اعتبارات نفاذية الألعاب	1. التعرف على الحواجز الرئيسية لنفاذية ألعاب الفيديو حسب نوع الإعاقة
	2. تحديد مشكلات النفاذ عند تصميم الألعاب وتطويرها
	3. تحديد فئات الألعاب القابلة للنفاذ الرقمي
	4. التعرف على وحدات تحكم ألعاب الفيديو المعدلة لتحسين نفاذية الألعاب
	5. تحديد أهم المقاربات المستخدمة لمعالجة نفاذية الألعاب
	6. مراجعة وتلخيص الإرشادات والمبادئ والاستراتيجيات والتقنيات الخاصة بنفاذية الألعاب
D6.4 تحقيق نفاذية التكنولوجيات الرقمية الناشئة	1. تعريف البيئات الغامرة والواقع الافتراضي والمعزز والمختلط XR
	2. التعرف على تحديات النفاذ في البيئات الغامرة والواقع الافتراضي والمعزز والمختلط XR
	3. تحديد أهم مشكلات النفاذ إلى البيئات الغامرة والواقع الافتراضي والمعزز والمختلط XR
	4. التعرف على احتياجات المستخدمين المختلفة المتعلقة بالنفاذ إلى البيئات الغامرة والواقع الافتراضي والمعزز والمختلط XR ومتطلباتها
	5. مراجعة المقاربات ومتطلبات النفاذ التي تدعم احتياجات المستخدمين لـ XR القابلة للنفاذ الرقمي
	6. استيعاب معاني قابلية النفاذ الرقمي للتكنولوجيات الرقمية المستقبلية