

SKILLS FRAMEWORK FOR INFOCOMM TECHNOLOGY TECHNICAL SKILLS & COMPETENCIES (TSC) REFERENCE DOCUMENT

TSC Category	Development and Implementation					
TSC Title	Data Visualisation					
TSC Description	Implement contemporary techniques, dynamic visual displays with illustrative and interactive graphics to present patterns, trends, analytical insights from data or new concepts in a strategic manner for the intended audience					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
			ICT-DIT-3006-1.1	ICT-DIT-4006-1.1	ICT-DIT-5006-1.1	
			Select appropriate visualisation techniques and develop dashboards to reflect data trends and findings	Design data displays to present trends and finding, incorporating new and advanced visualisation techniques and analytics capabilities	Establish an effective data visualisation architecture and design intelligent and adaptable displays employing optimal delivery modes, mechanisms and timings	
Knowledge			<ul style="list-style-type: none"> Interpretation of data analysis and findings Types of information displays Suitability of different data representations and visual displays for different contexts Data visualisation tools and techniques Elements of data dashboards 	<ul style="list-style-type: none"> New data visualisation tools and techniques Range of methods to portray data patterns, trends and correlations Dashboard development process and techniques Features of data displays Strategic visualisation and mapping techniques 	<ul style="list-style-type: none"> Emerging trends and developments in data visualisation Strategic elements and considerations in a data presentation architecture Modes and mechanisms for data delivery Intelligent data dashboard design methodologies and techniques 	
Abilities			<ul style="list-style-type: none"> Select appropriate visualisation techniques and information displays to convey data and findings Organise the presentation of data to reflect trends and correlations in a visually compelling way Incorporate appropriate elements to create informative and dynamic data displays Develop basic dashboards and 	<ul style="list-style-type: none"> Introduce new or emerging visualisation tools and techniques that are fit for purpose Exercise judgement on the presentation of data to ensure that critical trends and findings are presented in the optimal way Develop dashboards and scorecards incorporating advanced visualisation techniques and embedding analytics capabilities 	<ul style="list-style-type: none"> Establish an effective data presentation architecture to address critical business questions Integrate latest developments in data visualisation tools, techniques and methodologies Determine suitable data presentation delivery modes and mechanisms, tailored to key stakeholders' needs 	

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			<p>scorecards to display internal as well as external benchmark data</p> <ul style="list-style-type: none"> • Incorporate interactive graphics, visuals and technical features into the data presentation • Communicate limitations of data and interpretations of findings 	<ul style="list-style-type: none"> • Review tables, graphs, and dynamic data displays, to ensure key questions from key stakeholders are addressed • Design features of data displays including navigation, layout, user interface and user experience of interactive graphics • Align interpretation and presentation of data analytics findings with subject matter experts 	<ul style="list-style-type: none"> • Make decision on the optimal timing for presentation and updates of data and trends on dashboards and systems • Design intelligent data dashboards and customisable visual displays • Lead efforts to interpret and present explanations for counterintuitive patterns or findings 	
Range of Application	<p>Data visualisation tools may include, but are not limited to:</p> <ul style="list-style-type: none"> • Tableau • HTML/CSS • SAS Visual Analytics • R <p>Data visualisation techniques may include, but are not limited to:</p> <ul style="list-style-type: none"> • Line charts • Network diagram • Map frequency chart 					