The Twenty-First Century Humanitarian Information Manager

A Modern Competencies Framework

ANALYTICAL

PROACTIVE

COMMUNICATION

COORDINATION

CRITICAL THINKING

COOPERATION AND TRAINING

LEADERSHIP

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A Modern Competencies Framework

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Table of Contents

The problem

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Technology has and is changing the way information is managed in all phases of a crisis: preparation, alert, impact and response. [1] Humanitarian organizations depend on information and communication technologies, but machines have not yet replaced humans, meaning we still need people who, for example, can interpret the work of a computer. [2] It is crucial to clearly define a Humanitarian Information Manager's (Information Manager) role in the modern era, given that technologies will forever continue to emerge and change.

The role and usage of information changes rapidly with the emergence of new technologies, improved techniques and the way information systems are used. [3] These changes are not a static shift into something new but rather a dynamic process that is accelerating as the introduction of new technologies continues to speed up.

In a recent study regarding the shortcomings and opportunities of the Information Manager role in civil-society organizations (CSOs), CartONG [4] noted:

"According to respondents, less than a quarter of people responsible for IM within their CSO detain all or part of the competencies required for the positions they occupy. Respectively, 20% and 50% of respondents consider that the person responsible for IM does not have the necessary skills or is only partially qualified. According to our survey, the gaps reported in teams responsible for IM are of various types: methodological, technical and strategic. The most notable include assistance in selecting technical solutions, data protection, the ability to train colleagues, database design and management, and lastly, data analysis."

1 *Hagar, C. (2011). Crisis information management: Communication and technologies: Elsevier.*

2 *Docampo, M. V., & Bruegger, P. (2019). Humanitarian Organization ICT field specialists training: Bridging theoretical and practical humanitarian knowledge. Paper presented at the 2019 IEEE Global Humanitarian Technology Conference (GHTC).*

3 *Dumas, P. (1975). A New Breed of Managers: The Information Manager. Management International Review, 49-56.*

4 *CartONG. (2020). PROGRAM DATA: THE SILVER BULLET OF THE HUMANITARIAN AND DEVELOPMENT SECTORS?*

Today, defining the role of an Information Manager is an important topic of research and definition. Between the rapid technological progress and the challenges CartONG points out, being able to clearly define an Information Manager's role obviously has a large impact on the individual's work and the expectations of others. For example, is the Information Manager supposed to be a generalist? A Data Scientist? A Business Analyst? A Data Administrator? A Knowledge Manager? An IT Specialist? The range of functional titles becomes long and "fuzzy," leading to misunderstandings and misinterpretations. [5] This can lead to the unfair recruitment of inappropriately skilled individuals, causing problems for the candidates, the organizations and the wider sector. [6]

The purpose
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To help detail and explain the role of an Information Manager, we developed a competencies framework. Using the framework will create a discussion and help define the specifics for a given position. However, one should not consider the framework to be the sole and definitive source of all possible competencies or skills.

Interpreting and selecting the final competencies will depend on the context in which a position belongs. Most people have varying backgrounds, experiences, roles and organizational allegiances, especially in the field of humanitarian response management. Thus, the framework aims to bring some standardization in language when defining a new role or evaluating an application or an incumbent. This standardization helps to ensure that everyone is "on the same page," i.e a "common frame of reference" and expectations are more likely to be met.

Research approach
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A comprehensive literature review was used to identify the initial competencies. They were then discussed in semi-structured interviews with 19 interviewees and analysed through 10 job advertisements, which resulted in the addition of two more competencies. The interviews provided detailed nuances, uncovered new insights and supported the literature review findings. The list of interviewees is in annex 1. The list of analysed job advertisements is in annex 2.

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5 Schlögl, C. (2005). Information and knowledge management: dimensions and approaches. Information Research: An International Electronic Journal, 10(4), n4.

6 Staples, M., Niazi, M., Jeffery, R., Abrahams, A., Byatt, P., & Murphy, R. (2007). An exploratory study of why organizations do not adopt CMMI. Journal of Systems and Software, 80(6), 883-895. doi: https://doi.org/10.1016/j.jss.2006.09.008

A Competencies Framework for a Twenty-First Century Humanitarian Information Manager

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The next two pages outline the proposed framework. It consists of:

- Five competency areas: Changeability, Management, Problem-solving, Interaction and Support.
- Thirteen competencies.
- A definition of the competencies and related skills or abilities.
- A rating scale.

> (!) Remember: the framework should be used as a starting point to help steer the discussion and to help define the specific role of an Information Manager.

Using the framework

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The **ideal** Information Manager is expected to possess all the competencies outlined in the framework. However, not all competencies are necessary in every situation and it is unrealistic to expect one candidate to have them all. It is critical to consider which competencies are crucial in a specific role and which competencies are less important or can be developed over time. Adhering to the scoring structure outlined below will help an organization better define its requirements for each Information Manager position.

Scoring the competencies

The competencies are represented by arrows and numbers. The numbers give an indication of the scale with 1 being the least important and 7 being the most important. Scoring along the arrows can provide room for nuances between the requirements which are scored at approximately the same level. Scoring should happen at the competency level (vs. the large competency areas). To assess the importance, one can place a mark or a dot (●) on the respective arrow. To avoid the unrealistic outcome of all competencies scoring 7, suggested scoring would be as follows:

Three competencies scored at	1 or 2
Four competencies scored at	3 or 4
Four competencies scored at	5 or 6
Two competencies scored at	7

One may find it hard to decide whether one competency is more important than another. Here are some guiding points:

1. How often the incumbent is expected to use certain skills (e.g. designing infographics more than chairing working groups).
2. Size and make up of surrounding team.
3. How often the competency is mentioned in the job advertisement.
4. When and where the competency is mentioned (desired vs. required).
5. The person who defines the need for the given Information Manager role (i.e. what s/he expects of the role).

Competencies framework ■ ■ ■

1 Changeability

Adaptability (crisis context)	The ability to cope with pressure and failures and turn this into solutions. The ability to quickly adapt to new and changing situations and environments.
	Related competencies: flexibility, professionalism, stress resistant, humble, multitasking, sympathy.

    1   2   3   4   5   6   7

Adaptability (technologically)	The ability to cope with pressure and failures and turn this into solutions. The ability to quickly adapt to new and changing trends, tools and technologies.
	Related competencies: flexibility, professionalism, multitasking, curiosity, technological awareness

    1   2   3   4   5   6   7

Willingness to learn	Continuously learn about your expertise but also outside your expertise. The open-mindedness to gather knowledge from outside a certain organization or context and the willingness to try new forms of learning and to be open to using new technologies and concepts.
	Related competencies: open-minded, curiosity, desire to work hard

    1   2   3   4   5   6   7

2 Management

Leadership

The process of influencing people to guide them in the right direction to achieve goals and provide results. The ability to maximize the efforts of others to produce the correct products effectively and efficiently.

Related competencies: management, monitoring, strategic thinking, dealing with conflicts, human resources, decisiveness, problem-solver

1	2	3	4	5	6	7

Coordination

Planning and organizing your own tasks and the tasks of others. Takes responsibility for own tasks and for helping others when necessary. Someone who initiates, leads, monitors and guides activities.

Related competencies: management, organizing, planning, accountability, decisiveness, centralization, overview, delegation

1	2	3	4	5	6	7

Alignment

The ability to align the available information and data with the needs of various stakeholders. Making sure that the tools used fulfil stakeholders' needs.

Related competencies: integration, interdisciplinary, prioritization

1	2	3	4	5	6	7

3 Problem-solving

Analytical

Methodically researching, analysing, reporting and formulating problems. This includes critically looking at the decisions made by oneself and implementing improvements where necessary.

Related competencies: analysing, translation, sense-making, human judgement, interpretation, presentation, visualization

1	2	3	4	5	6	7

Critical thinking

Identifying, mentioning and reporting activities that are being done incorrectly or cause errors or misunderstandings. Able to look at certain situations or processes differently and identify the error and find a solution.

Related competencies: neutrality, objectivity, integrity, iterative thinking, open-minded

1	2	3	4	5	6	7

Entrepreneurial

Improvise, creative thinking and an entrepreneur's risk-taking thinking. Not afraid of failure and does things differently.

Related competencies: creativity, improvisation, being comfortable with failure, risk-taking

1	2	3	4	5	6	7

Proactive

The ability to take the first step instead of waiting. Someone who is willing to work hard and initiate activities.

Related competencies: desire to work hard

1	2	3	4	5	6	7

4   Interaction

Communication

Social skills and the willingness to work with others, e.g. teams or external stakeholders. Able to build and maintain trust and relationships and is good at expressing oneself verbally, non-verbally and in writing.

Related competencies: listening, advisory, diplomacy, writing, storytelling, transparency, create trust, relationship-building, networking, convincing, teamwork, informal and formal communication

1	2	3	4	5	6	7

Cooperation and training

Didactic skills, the ability to train people, and the ability to explain certain concepts, technologies and methods to other people who do not have the knowledge.

Related competencies: reciprocity, training skills, empathy, willingness to help others

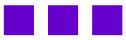| 1	2	3	4	5	6	7

5   Support

Administrative

Willingness to maintain the necessary (ICT-related) administrative and support activities of your work, the progress, results, etc.

Related competencies: support

1	2	3	4	5	6	7

Practical application

Below are five examples of how the competencies framework could be put to practical use.

1

Identify a team gap

Information Managers sometimes work alone, but they are often part of a team. By leveraging this framework, one could assess the team members' competencies and potentially identify any gaps. These gaps will highlight the required competencies and thus influence training programs and future positions.

2

Create a job advertisement

When an Information Manager position will be advertised, using this framework can help to prioritize the competencies and skills required. In doing so, a more appropriate job description can be written and advertised. Being more accurate at this stage will likely lead to finding the most appropriate candidate who can then better deliver to the expectations of those hiring.

3

Evaluate applicants

When a position is advertised, there are often more than 100 applications. After the initial screening, this framework could be used to evaluate applicants. By prioritizing the competencies, it will become clear which applicants may be most suitable for the position.

4

Analyse the Information Manager role

The framework could be used to compare Information Manager positions between organizations and across years and disasters, etc. New insights could be gathered through such an assessment. The framework could help answer questions such as:

1. Have the competencies required for an Information Manager changed over the years?
2. Are the competencies required for an Information Manager that occur in the interviews different than the competencies listed in the job advertisements?
3. Do the required competencies for an Information Manager differ by organization?
4. How do the competencies for an Information Manager in a sudden-onset differ from those in a protracted emergency?

5 Develop Information Manager profiles

The framework can be used to formulate different Information Manager profiles applicable for a certain organization or context. For example, one could use the radar chart to define the requirements of a given Information Manager role for a specific context. The graph helps depict the importance of the individual competencies in different situations or from different perspectives. **Figure 1** shows the competencies framework in the form of a radar chart. **Figure 2** shows two fictitious competency assessments on the radar chart.
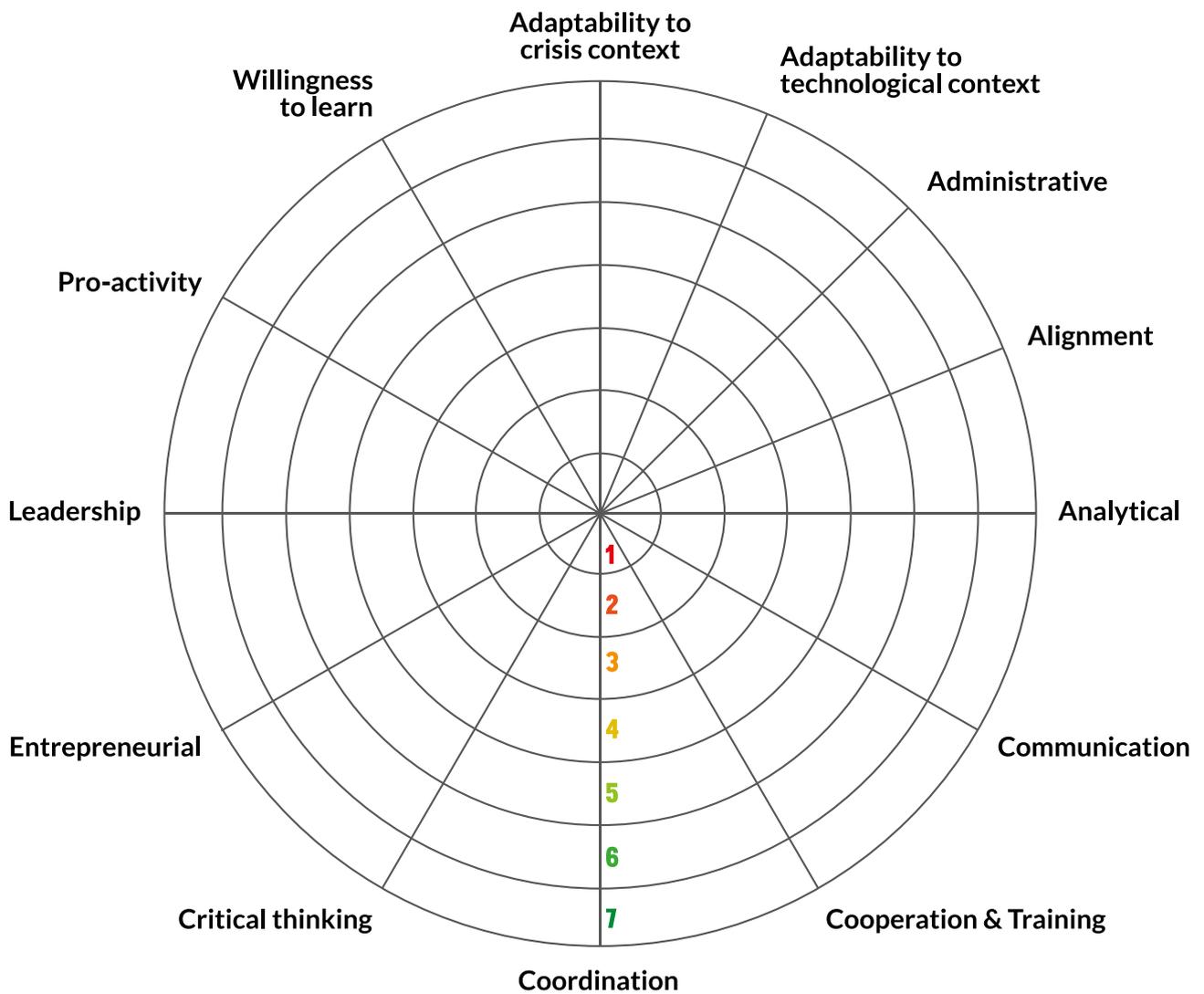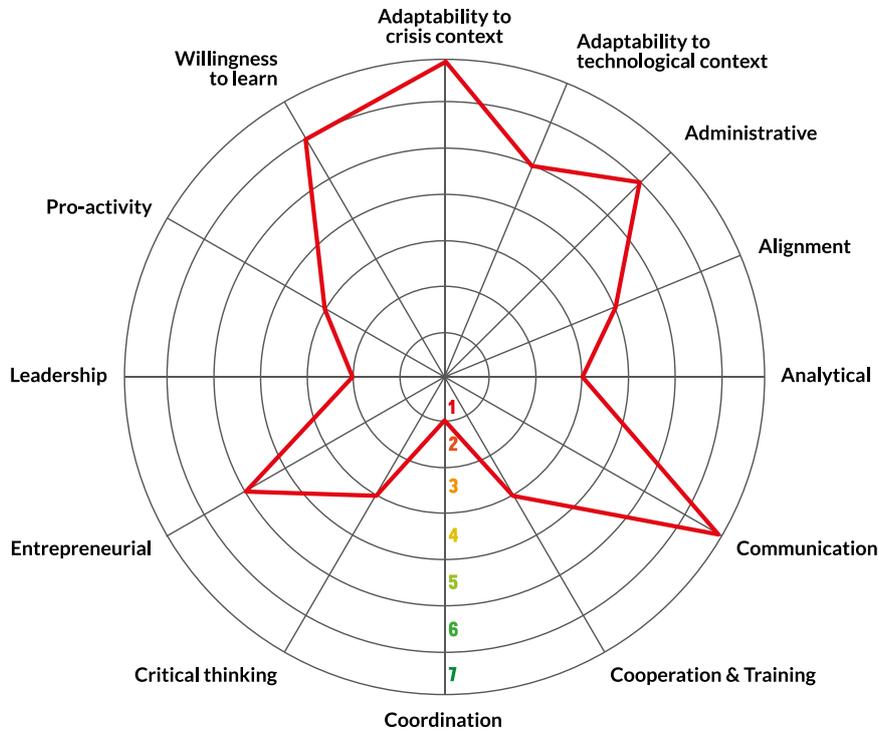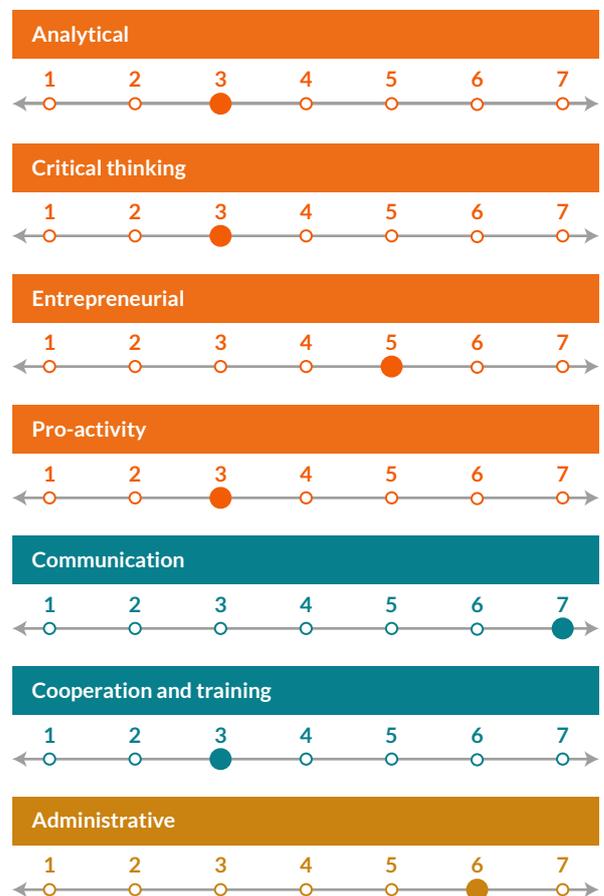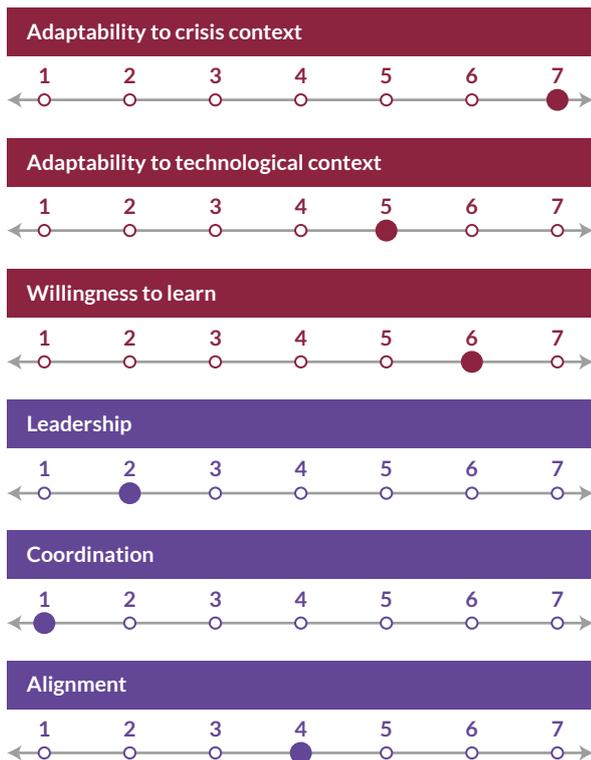

Figure 1

Figure 2

Information Manager deployed to the early days of an emergency needs to be adaptable and have strong communication skills. Depending on their role in their team, a specific person may not require strong coordination or leadership skills.

Competencies framework

Adaptability to crisis context						
1	2	3	4	5	6	7

Adaptability to technological context						
1	2	3	4	5	6	7

Willingness to learn						
1	2	3	4	5	6	7

Leadership						
1	2	3	4	5	6	7

Coordination						
1	2	3	4	5	6	7

Alignment						
1	2	3	4	5	6	7

Analytical						
1	2	3	4	5	6	7

Critical thinking						
1	2	3	4	5	6	7

Entrepreneurial						
1	2	3	4	5	6	7

Pro-activity						
1	2	3	4	5	6	7

Communication						
1	2	3	4	5	6	7

Cooperation and training						
1	2	3	4	5	6	7

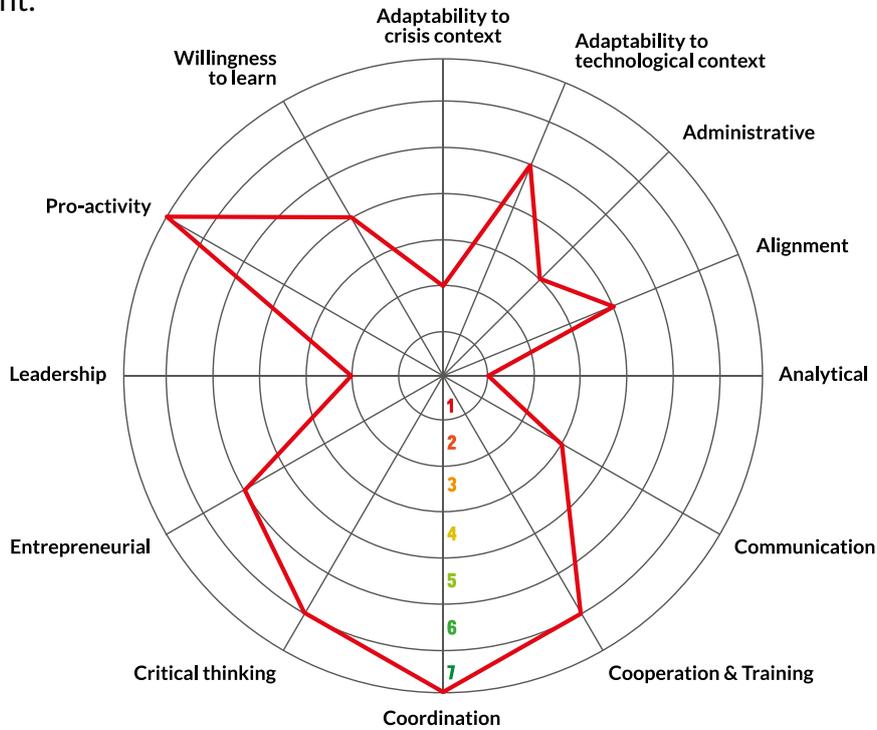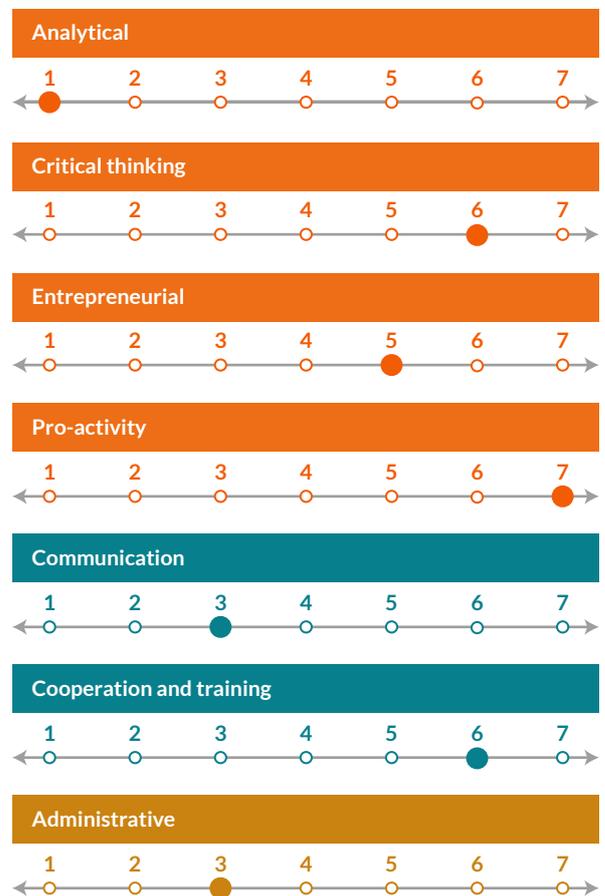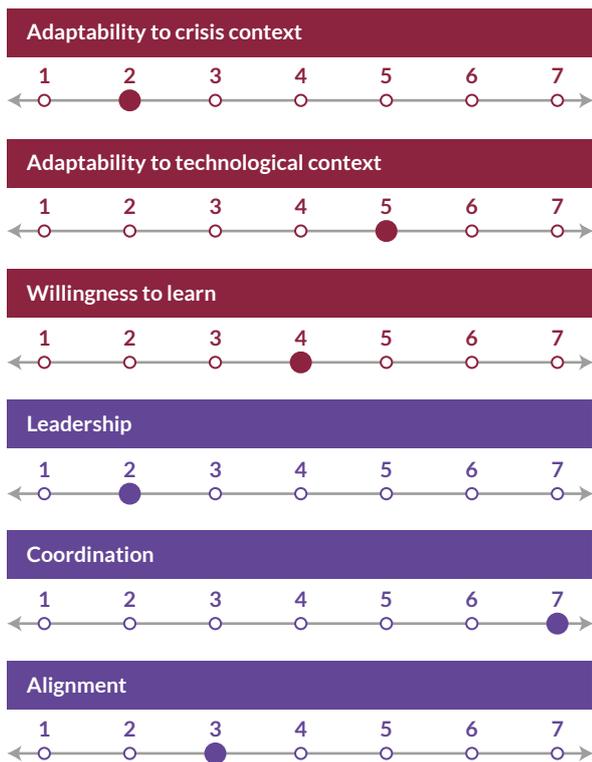| Administrative						
1	2	3	4	5	6	7

Figure 3

In a more protracted emergency, the lead of an Information Management team will need to be proactive and have strong coordination skills. Since the situation is more stable and an Analysis team is in place, their need to be adaptable to the crisis and perform crisis-analysis are less relevant.
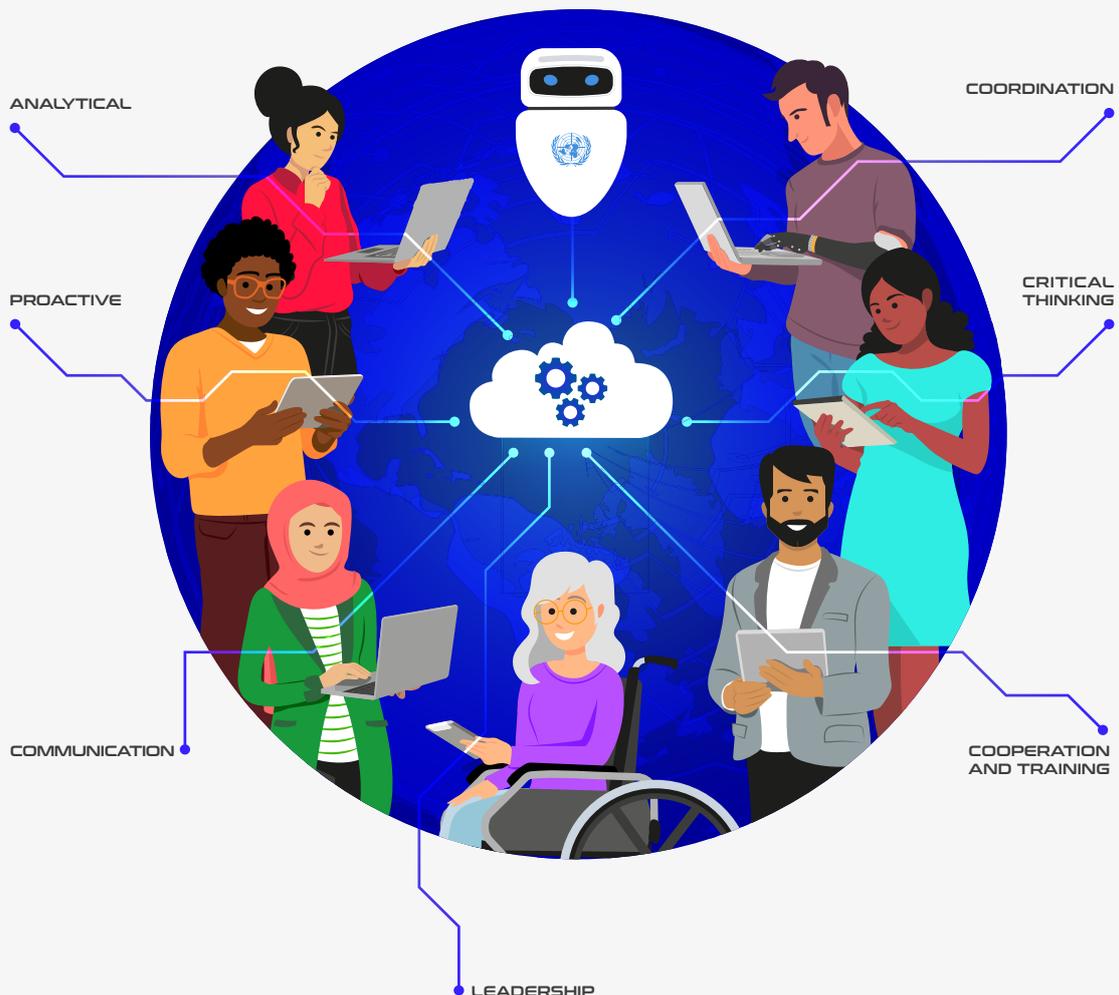

Competencies framework

Key messages

🔑 The most important finding from this research is that there is more than one definition of an Information Manager. How the interviewees talked about an Information Manager's role depended on their background, their managerial level, the context, their job function, etc. Therefore, one should only use the framework to steer the discussion of defining an Information Managers' role and thereby eliminating potential misunderstanding. Furthermore, this framework is not the end; it is a starting point for describing the role of an Information Manager. Specific tasks, knowledge, education requirements, etc. are not yet included in the framework and can be further discussed. Again, the aim of this framework is to facilitate the discussion about the Information Manager's role.

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Appendix 1: List of interviewees

Name	Organization	Position
Interviewee 1	UN OCHA	Programme Management Officer
Interviewee 2	Tilburg University	Researcher Information Management
Interviewee 3	UN OCHA	Information Management Officer
Interviewee 4	Delft University of Technology	PhD student
Interviewee 5	UNHCR	Senior Data Analyst
Interviewee 6	Rivanna Strategy	Consultant Strategic Systems
Interviewee 7	Red Cross	Analyst, Information Management
Interviewee 8	Chr. Michelsen Institute	Researcher in digital technologies
Interviewee 9	UN OCHA	Programme Management Officer
Interviewee 10	UN OCHA	Geographic Information Systems Officer
Interviewee 11	International Committee of the Red Cross	Information Management Officer
Interviewee 12	ReliefWeb	Content Manager
Interviewee 13	Delft University of Technology	Data steward
Interviewee 14	Vrije Universiteit Amsterdam	Researcher Crisis Management
Interviewee 15	UN OCHA	Technology Architect and Standards Lead
Interviewee 16	WeRobotics	Human Resources Manager
Interviewee 17	DG ECHO	Emergency Response Officer
Interviewee 18	UNDAC/European Commission	UNDAC member/EU expert
Interviewee 19	Fire Service	Chief Executive Officer

Appendix 2: List of job advertisements

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Job advertisement	Platform	Posting period	Job Title
1	UN OCHA	7 July 2020 – 20 July 2020	Information Management Officer, P3
2	UN OCHA	4 August 2020 – 17 August 2020	Information Management Officer, Temporary Job Opening (TJO), P3
3	UN OCHA	5 August 2020 – 19 August 2020	Information Management Officer, TJO, P3
4	ReliefWeb – IOM	27 November 2020 – 10 December 2020	Information Management Officer (IMO)
5	UN – UNV	5 November 2020 – 20 December 2020	Information Management Officer, Beirut
6	UN – Internews Network	23 November 2020 – 30 December 2020	Humanitarian Information Manager, Lebanon
7	UN – UNV	2 December 2020 – 15 December 2020	Information Management Officer, Brazzaville
8	ReliefWeb – UNHCR	24 November 2020 – 7 December 2020	Information Management Officer
9	ReliefWeb – Oxfam GB	25 November 2020 – 8 December 2020	Information Management Officer – Purnima WASH
10	Career Jobs International	14 September 2020	Information Management Officer | ReliefWeb

Appendix 3: Competencies framework scorecard

Adaptability to crisis context

1	2	3	4	5	6	7

Adaptability to technological context

1	2	3	4	5	6	7

Willingness to learn

1	2	3	4	5	6	7

Leadership

1	2	3	4	5	6	7

Coordination

1	2	3	4	5	6	7

Alignment

1	2	3	4	5	6	7

Analytical

1   2   3   4   5   6   7

Critical thinking

1   2   3   4   5   6   7

Entrepreneurial

1   2   3   4   5   6   7

Pro-activity

1   2   3   4   5   6   7

Communication

1   2   3   4   5   6   7

Cooperation and training

1   2   3   4   5   6   7

Administrative

1   2   3   4   5   6   7

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