**Interview 10**

**1-Demographic Data**

* Gender: Male
* Age Group: 36-45
* Job Title: Chief of the GIS process analysis section
* Department: *GIS Process Analysis*
* Experience: 21 years
* Academic qualification: Bachelor of Business Informatics

**2-Questions and Answers**

1-How many years of experience do you have?

**I have almost 20 years in GIS, I started in the Bahrain Center for Studies and Research in the Geomatic section which was a private section that is the commercial branch of the Bahrain Center. We worked as a government company work in the GIS domain, providing GIS data and services like tracking to government entities and the private sector this was in the period from 2003 to 2011. In 2011 some changes occurred in the center, employees were distributed to other government institutions some of them were distributed to the Central Information Agency then in 2016 there was a merger between the e-government and the Central Information Agency, and the name that you see today is the e-government Information Authority.**

2-What’s your department?

**Our department is The GIS Process Analysis section and our authority is divided into 3 departments: Geographic Information Systems and Remote Sensing headed by Fathi al-Porcheel, we have GIS Process Development headed by Rawan Musa, and my department's GIS Process Analysis section. We are working on developing systems from design, work flow approvals, and re-engineering processes beside the operation but our work is more about designing systems. This means that we give the requirements to the GIS Process Development department, so we collaborate with other entities that we work with like almost all government entities that work in infrastructure, so we take the requirements and reformat them in files called technical/business requirements and document the present and suggested procedures then make re-engineering to it and adding GIS technologies like Automatic verification then these systems are designed and approvals made depending on these requirements.**

3-I have almost taken an overview of the Open Government Data in the Kingdom of Bahrain, and I know that the portal has changed. What are the challenges that affect the Open Government Data in the Kingdom of Bahrain?

**I think security is one of the challenges that threaten not only the Kingdom of Bahrain but also all countries in the region, specifically data privacy, we know that open data is very useful in making decisions but if there is no control over this data, it could be used in a harmful way against government or people who share this data, but now we have new technologies that could overcome this threat, first of all, data classification is important as the person decide if the data he share is sensitive, could be used in a harmful way or not and building on data classification result he decide to share data or not and if it could be shared he should decide to share it in which way, like open data. We have now some systems and new technologies that allow us to share data and provide some sort of control over it, like observing login records and knowing who used it and used it to make what, so these technologies reduce the threat. Data is important you can’t plan any project without having data support. Another challenge is the availability of data and being up-to-date, At the level of geographic information systems, we have a national geographic information base that contains nearly 400 information segments from various entities in the Kingdom of Bahrain related to infrastructure, the environment, and others, so up-to-date data is an important challenge and government entities should collaborate to manage the updating of the data by priority and providing control on this data. Data accuracy is also a challenge as data being available doesn’t necessarily mean it’s useful.**

4-There are challenges in data privacy and security, is the solution on the administrative side only, or other solutions could be provided from other aspects?

**No, there is an administrative and technological solution, for example, we in the GIS database share our data with specific government entities only besides having logging technology to track any entry to the database, so we have control of the database.**

5-What are the specific domains you see that have an opportunity to leverage Open Government Data to drive innovation? For example, in the government sector, we have education and healthcare, and in the private sector, we have startups and so on ? .

**As I mentioned before all the fields need data there is no limitation for this point. The cabinet of the Kingdom of Bahrain doesn’t approve any project without statics supporting the project’s value, so all the fields will benefit from Open Data but we should have sort of control and classification on it. The data we provide is useful especially GIS data for both the public and private sectors, the private sector could take this data to discover the area of the project if the project is opening a cafe for example data like number population, age group, and nationalities could be beneficial to know if the project will be successful. So, to conclude if we provide control and classification to Open Data, it will be very useful either in innovation or in new technologies like AI.**

6-How do you see the technological innovation in supporting the performance of Open Government Data?

**Generally, we hear about new technologies like AI and blockchain. We have a new technology in our domain called the Building Information Model (BIM) this is one of the standards used in other domains like small cities.**

7-How do you measure the performance of data?

**We measure the performance of the government, we have a building license at every stage, and this license passes to some government entities, The government makes kind of agreements in every stage on all the entities like agreements, 1-month reports, and 3-months reports to measure the performance of these entities beside measurements applied to measure the data quality and accuracy. When we started, we had a GIS database and we had no idea about the accuracy of data then we started to connect systems to the GIS database and we made sort validation to data by the users for example users use the maps when they build streets and compare if there is any difference between the street and data in the maps then they give feedback and building on this feedback the authority adjusts the data. We also working on a project called Experimental drilling which is an accurate check on data present now, so if we have a digging project, we make experimental digging although we have the data this experimental digging will help you to compare what information we have from data and what’s already there in real life then sending feedback to the authority, we could use AI in feeding this data.**

8-What are the future trends you see in the e-government domain in the Kingdom of Bahrain?

**There is a new administration in the authority specialized in new technologies and working on new projects including the use of AI, Cloud computing, cybersecurity, and blockchain. The Kingdom of Bahrain always do its best to use these opportunities I see that every two or three years we improve our systems and work on new technologies and in our domain, we work on BIM and study how to improve our dataset and add new technologies like AI and machine learning, we make good progress and our government goal is to digitalize all the services to serve the citizens and residents in the best possible way.**