BIM Harambee .Africa

26 July 2024: Session 2

Careers in BIM

Understanding BIM roles and career-paths

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BIM is the **process of collaboration + federation of information** amongst professionals in the built environment over the whole **lifecycle** of a built project

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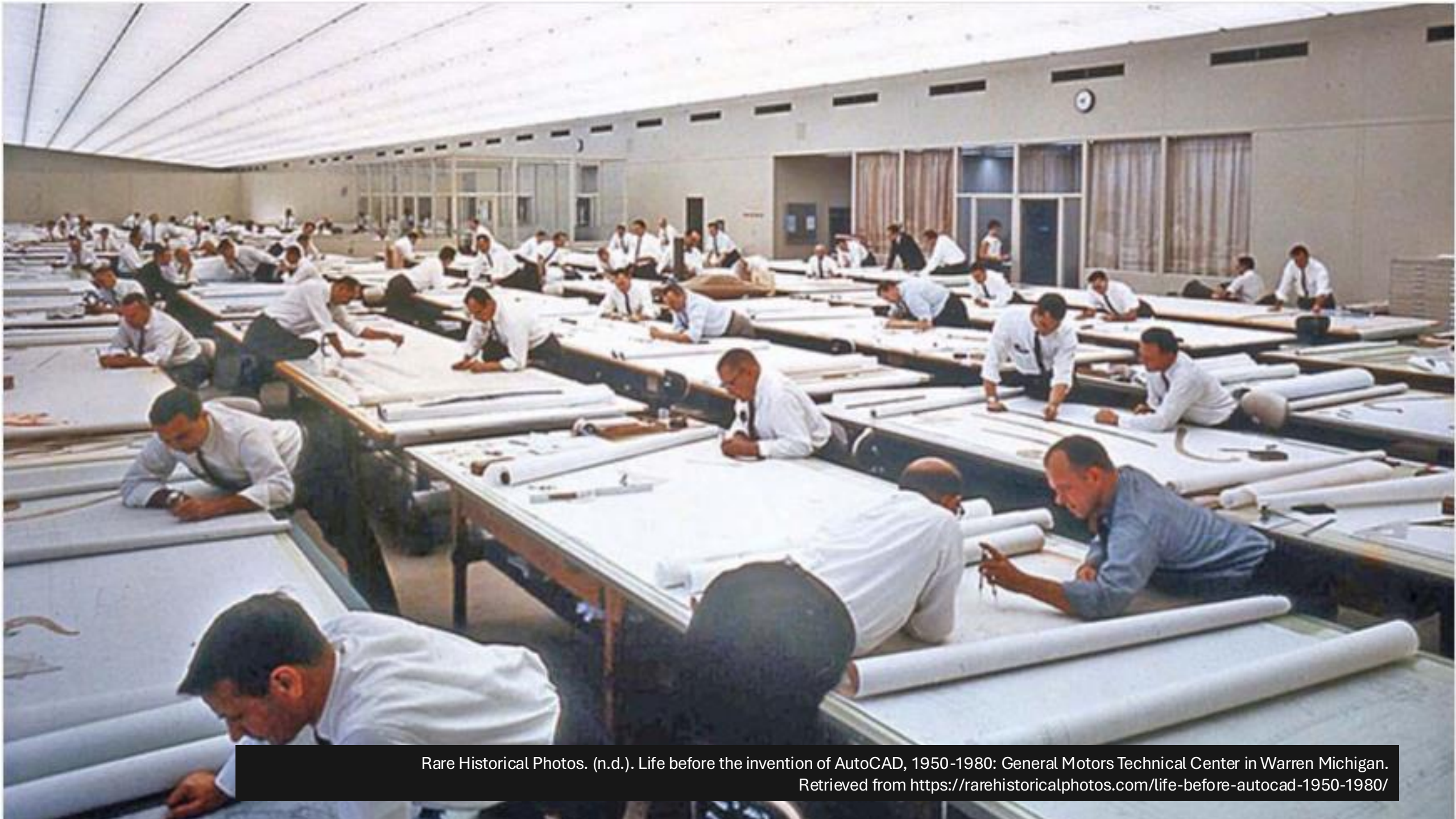

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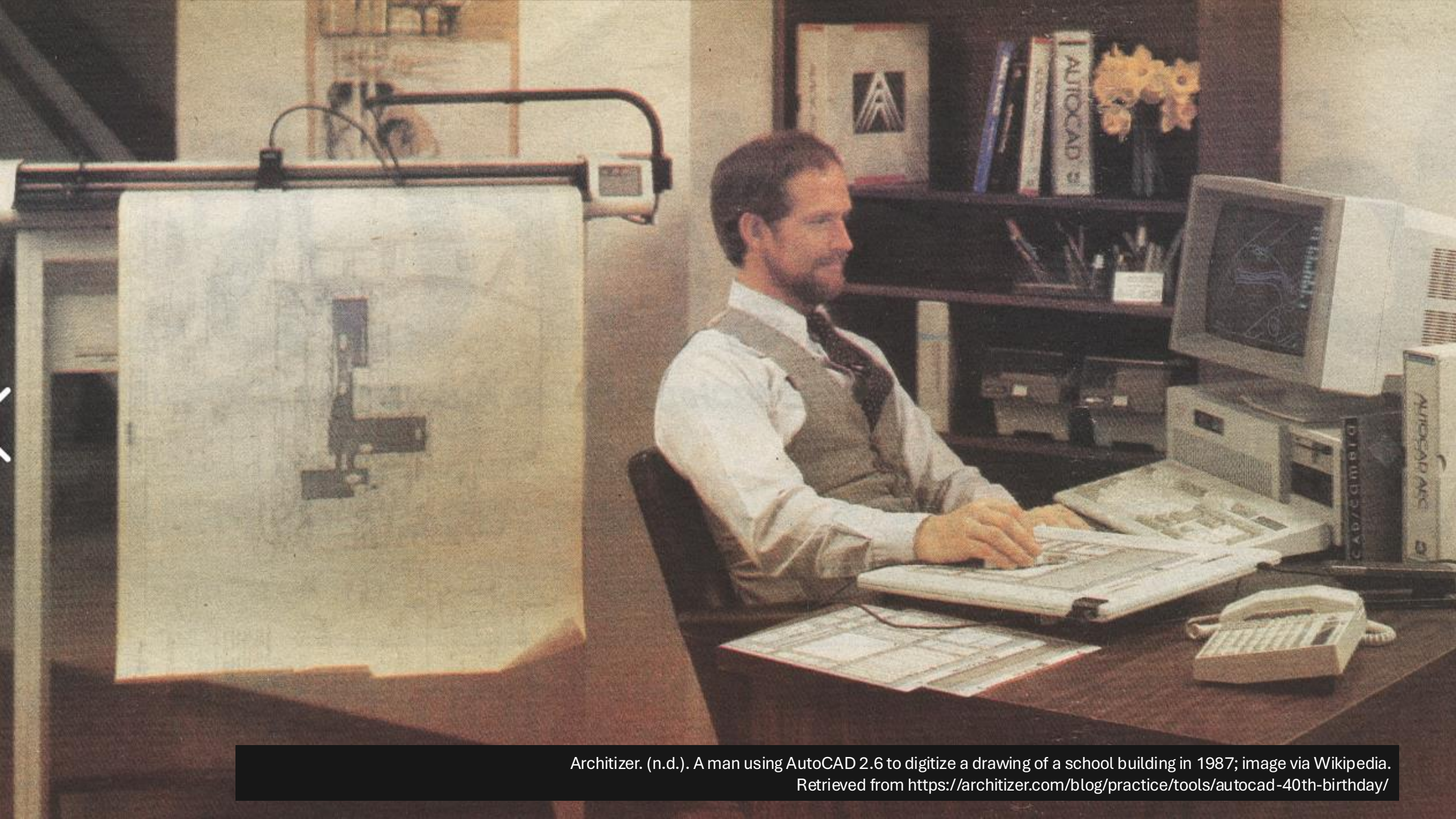

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Building Information Management **is the job.**

It has **always been the job.**

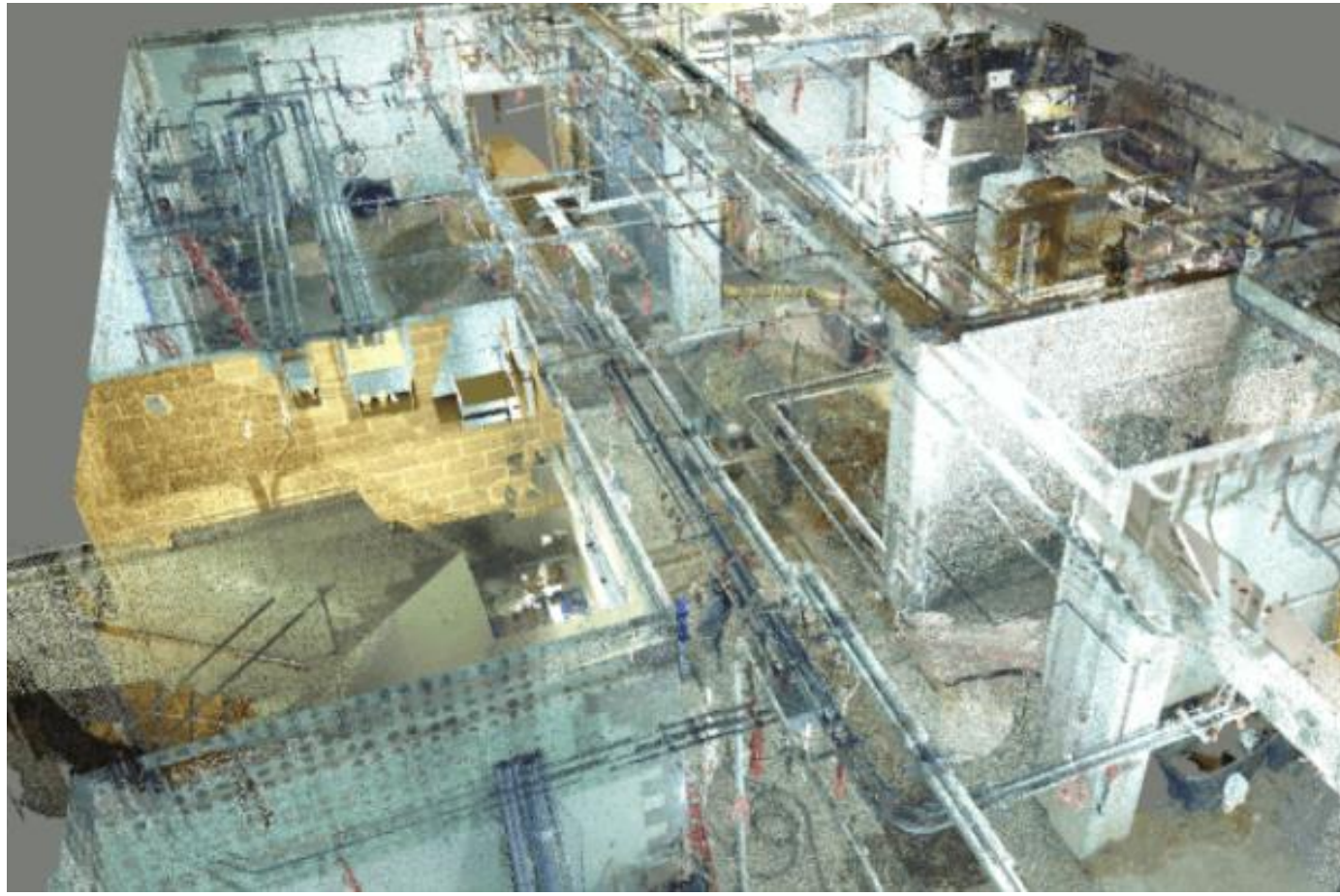
The **medium of collaboration** (BIM) has just radically evolved with improved **digital technology**, **business processes,** and **new organizational structures.**

Understanding Careers in BIM

A BIM Career is a **professional journey.**

- A BIM Professional is *not* an "IT guy with a Revit license"
- A BIM Professional is *not* a "3D renderer" or "graphic designer"
- A BIM Professional is *not* a "project manager who also works with pictures"

"Not everything that is 3D is good. But if it's good, it will be 3D"



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Understanding Careers in BIM

A BIM professional is an *Information Manager* of built environment products, processes, and decisions.

This means, a BIM Professional has, at minimum,

- **a foundational education in professional training** in the core built environment disciplines *(arch, eng, qs, property sciences, project management etc.)*
- With **specialization + expert skills** beyond core disciplinary confines.

Image from Gallery, BIM Africa.
Retrieved from https://bimafrica.org/

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Understanding Careers in BIM

A BIM Professional is both a **technical *and* decision-support** expert.

- Many BIM Professionals start their careers from traditional built environment disciplines.
- Then, they develop specialized skills based on individual talent + interest.
- Many BIM Professionals first gain expertise in information management, design, modeling, + data federation / analytics
- Some choose to advance to digital leadership + organizational management roles.

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There are two types of BIM professional career types

The BIM and Digital **Management Professional**

- Responsible for **strategic implementation** of BIM across the organization or business **as a whole.**
- Define the vision, set goals, establish standards + protocols for **digital design + delivery of professional works.**
- Ensure the necessary resources, including **human talent, software, hardware, + training** are suitable and available for project teams.
- Their role is crucial in driving **digital transformation**, **culture of innovation,** and ensuring that organizations keep up with industry advancements.
- The help to **educate clients + collaborators** on roles / responsibilities, ensures digital delivery is **successful + reliable**

The BIM and Digital **Project Delivery Professional**

- The BIM and Digital Delivery Team is responsible for the **practical application of BIM on specific projects.**
- They use BIM tools and processes to **design, analyze, coordinate, federate, + visualize projects.**
- They collaborate with various stakeholders, both internal and external, to ensure that **the project** is delivered efficiently and effectively **every day.**
- Their role is hands-on and requires a deep understanding of the built environment, of BIM tools and project delivery processes on a **technical level.**

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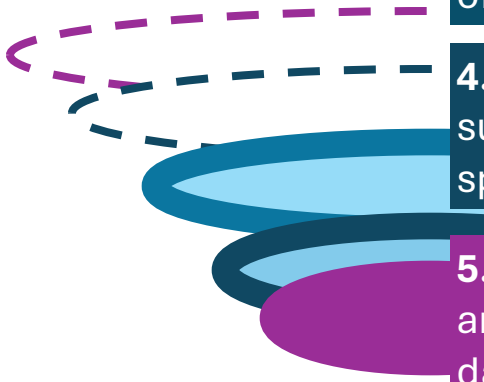
There are not “more or less important” people in a BIM team.

BIM team-members play different + specific roles, so project teams can ultimately make the best decisions for the project overall.

BIM teams are only as strong as their weakest information-providing link.

BIM and Digital Delivery Teams

Your BIM Organization or Digital Firm



1. BIM and Digital Leads set the tone and direction for digital design and delivery at a strategic level for your organization	Strategic Role + Mature Expert
2. BIM Managers ensure organizational accountability for all BIM implementation for all projects in your market.	Strategic Role + Mature Expert
3. Information Managers helps people get what they need across all projects, ensures efficient management, use of data, information, and organizational knowledge	Information Manager + Generalist
4. BIM Coordinators are project specific roles, and ensures the successful implementation of BIM processes and standards on the specific project	Project Specific + Specialist
5. BIM Modelers and Detailers are project specific roles, the heart and soul, who translate design decisions into contextual 3D+ multi-data models	Project Specific + Specialist

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BIM and Digital Delivery Teams

BIM and Digital Lead

Sets the tone and direction for digital design and delivery at a strategic level for your organization

Strategic role across your entire organization

- Strategic planning + team / organizational management + sometimes do hands-on technical works on projects.
- Responsible for overseeing and coordinating implementation of **all digital technologies, *including BIM*, across all projects** in your organizations' **digital ecosystem.**

Requires

- 1. 5 – 10 years industry experience in digital technology / BIM leadership roles.
- Strong technical knowledge of BIM standards, methodologies and software.
- Excellent leadership + team management skills.
- Excellent communication + interpersonal skills.
- Strong problem-solving + decision-making abilities.
- Degree in engineering, architecture, construction management, or a related field.

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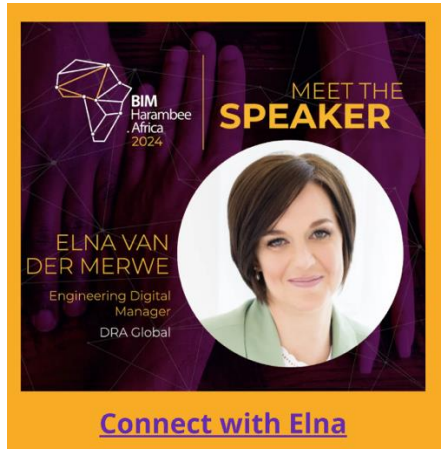
BIM and Digital Leads

Connect with Richard

Connect with Marius



Connect with Elna

Connect with Nathan

Connect with Rob

BIM and Digital Leads are typically mature and experienced individuals with a blend of skills

Cold Skills (technical skills)
- BIM Modeling, Data Federation, Information Management, etc.

Hot Skills (Leadership + Specializations)
- Strategy and management skills

Warms Skills (People + Teams)
- People and communication skills

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BIM and Digital Delivery Teams

BIM Manager

Ensures organizational accountability for all BIM implementation for all projects in your market.

Strategic implementation role across all projects

- Support Digital Leads on the ground - but they are more specific and technical than Digital Leads.
- Lead BIM team(s), innovation and experimentation with new BIM technologies.
- Accountable for **all BIM implementation for all projects, project performance tracking + efficient BIM execution**.
- Responsible for data integration between databases and BIM model system codes.

Requires

- 1. 5 – 10 years BIM management experience.
- Proficiency in modeling, federation, + information management.
- Strong knowledge of ISO19650 and BS EN 17412 with completed internal leadership training.
- Skills in data analytics, such as Excel, SQL, Python, and PowerBi.
- Excellent problem-solving + communication skills + advanced technical expertise.
- Degree in engineering, architecture, or construction management or a related field.

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BIM Managers

Connect with Anien

Connect with Gary

Connect with Suvaniya

Connect with Melvern

BIM Managers are typically experienced individuals with a blend of skills

Cold Skills (technical skills)

- BIM Modeling, Data Federation, Information Management, etc.

Hot Skills (Leadership + Specializations)

- Strategy and management skills

Warms Skills (People + Teams)

- People and communication skills

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BIM and Digital Delivery Teams

BIM Coordinator

Project specific role ensuring BIM implementation, processes and standards on the specific project

Project-specific implementation role

- Ensures successful BIM implementation, processes and standards on **specific projects.**
- Most senior BIM Coordinator amongst project teams typically become the BIM Project Lead also.
- Collaborates with broader project team, executives, and BIM Managers to ensure appropriate use of BIM technology and methodologies on the job.

Requires

- 1. 5 – 10 years BIM management experience.
- Proficiency in modeling, federation, + information management.
- Strong knowledge of ISO19650 and BS EN 17412 with internal leadership training.
- Skills in data analytics, such as Excel, SQL, Python, and PowerBi.
- Excellent problem-solving + communication skills + advanced technical expertise.
- Degree in engineering, architecture, or construction management or a related field.

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BIM and Digital Delivery Teams

BIM Modelers + Detailers

Project specific roles, **heart and soul**, translate design decisions into contextual, 3D+ multi-data models

Project-specific implementation role

- Virtual builders of physical projects, translate design decisions and federates information into contextual, 3D+ multi-data models.
- Specialists, technicians, technologists, or qualified experts with specific built environment disciplinary knowledge and BIM skills.

Requires

- 1.5 –10 years industry experience in architecture, engineering, or construction.
- Advanced modeling, model federation, + information management skills.
- Multidisciplinary modeling skills highly desirable.
- Strong knowledge of ISO19650 + BS EN 17412.
- Proficient in BIM modeling software, data fusion + analytics advantageous.
- Diploma in built environment discipline.

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BIM Coordinators, Modelers + Detailers

Connect with Machiel

Connect with Thabelo

Connect with Unarine

Connect with Willem

Connect with Augustine

BIM Coordinators, Modelers and Detailers are typically individuals with specialized skills

Cold Skills (technical skills)

- BIM Modeling, Data Federation, Information Management, etc.

Warms Skills (People + Teams)

- People and communication skills

These roles can be life-long professional career paths.

BIM Coordinators can + do form part of management teams.

Expert BIM Coordinators, Modelers and Detailers are highly sought-after specialists, globally.

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Computational Design, Data, AI,+ Digital Design Specialists

Connect with Andre

Connect with Astrid

Connect with Louis

Connect with Lubabalo

Connect with Claudio

Connect with Xavier

Connect with Nkcubeko

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