

# Understanding Digital Language

We are all more connected than ever and in our jobs. From our workplace to mobile, to our home office perhaps and then on to IT projects which promise a lot but then under-deliver.... It can sometimes seem a little overwhelming.

How to overcome your fear of being involved in another terrible digital project (or worse a 'transformation') when you can't even admit to yourself that you don't know what some of the terms even mean? Are you confident that any of the people you're working with are confident with the language either?

Just like any language, digital transformation has its own vocabulary. This can seem insanely complex, difficult to understand and loaded with technical and project management jargon.

This guide is an attempt to provide a clear explanation - from the [bottom up](#) - of what the words you might here in your organisation when it comes to IT, digital transformation projects, software projects, the cloud, etc.

Think I missed any good ones? Hit me up on [twitter](#) or mail [me@richardwdown.com](mailto:me@richardwdown.com)!

## The Basics

Computer or Workstation or Desktop or Laptop	A physical computer upon which an Operating System can be installed
Operating System or O.S.	The base or system software which runs on a computer e.g. Windows, MacOSX, Linux
Hardware	Any physical object in I.T. Typically referring to a computer, a mobile, a tablet but could mean something else physical.
Software	The programs that run on a computer.
Virtual Machine or V.M.	A virtual computer - it runs inside another powerful (hardware) computer usually in a Data Centre.
Data Centre (DC)	A place where many physical computers are 'racked' and connected to the network/internet so that they can be accessed remotely.
Computer language	From BASIC to C to Pascal to C++ to Python to Go. There are hundreds of computer

	languages and they allow developers to build the software that you use.
I.T. or IT	Information Technology. Collective noun for everything that is to do with computers, networks, software (the programs that run on computers), files, file storage, databases.
System	The name for an integrated set of software (i.e. a 'software system') or a procedure that someone or a department follows (or creates).
Process	The act of producing something for the business. This can either be manual or automatic or a mix of the two. For example, sending an invoice, paying a supplier, updating a website.
Process flow	How a process interacts with its environment and other actors or systems.
Event	Something that happens in a process flow.
Automation	A manual process which has been replaced by a piece of software triggered by an event.
Code	What developers produce in order to make software.
File	A document like a Word doc or a Text file, or an MP3 or a video file.
Filesystem	Where your files live on your computer, or perhaps on a network share or even in the cloud.
Device	Usually refers to your computer, your mobile phone, your laptop, your tablet.
User Interface (U.I. or UI)	The way that the software looks on the screen of your device.
User Experience (U.X. or UI)	The way that the software responds to you and you interact with it. Sometimes this is confused with U.I. but this is more about the interaction i.e. the 'experience', the way it works.

Website	A computer system which serves web pages including documentation, video, audio.
Environment	The settings which provide information necessary for a piece of software to run in.
Settings	Another word for Environment.
Server	Another (slightly historic) name for a computer which hosts files or a database or even a website (Web server).
Network	The way computers communicate with each other either wirelessly or via wires

## Project Management

Timeline	The duration of something, how long will it take to be done e.g. 'what's the timeline?'
Plan	A project plan. How are we (or they) going to deliver what we want, usually by a certain date at a certain cost.
Planning (vb)	Either the act of working out a plan
Planning (n)	Another name for the Plan i.e. 'how does the planning look?'
Deliverables	What is the project creating? Software, a new system, a change? These could be deliverables or they could be made up of smaller 'deliverables'
Milestone	A point in time in the project or a point in delivery (a certain set of deliverables have been produced)
Delivery	The act of completing a part of the project
Partner	Usually refers to a company who is working with a member of the project team. Another vendor e.g. 'we have Microsoft as our partner'
Project Sponsor	The person who champions a project, creates the business case and ensures that it gets

	delivered with the help of the project manager.
Project Board	Helps oversee the running of the project and ensures that it's on time, on budget and provides input regarding potential changes to time, cost or scope.
Prince2	A project management methodology which defines a formal way of managing projects. Often not fully adhered to or confused with Agile methodologies. (PProjects IN Controlled Environments)
Agile	A collective noun for a group of principles and frameworks which aim to make software development more transparent but has actually made it more confusing.
The Agile Manifesto	Where Agile started from over 20 years ago.
Scrum	Is one way of 'doing Agile'
Kanban	Is another way of 'doing Agile'
Lean	Originally taken from the Lean Manufacturing process of Toyota, now popularised by the 'Lean Startup' by Eric Ries. How to build software products quickly and easily.
Minimum Viable Product (MVP)	An important part of the Lean Startup technique. Build something 'good enough' early on and iterate.
Sprint (n)	An amount of time dedicated to delivering a 'product iteration' or a piece of work (usually) on a software project.
Timebox (n)	A dedicated amount of time.
Timebox (vb)	To keep something to an agreed amount of time i.e. "let's timebox this"
Standup (n)	A daily ritual in Scrum. Should be no longer than 15 minutes and to keep it to time it was initially intended that everyone 'stand up'.
Rituals and Ceremonies	The names for regularly occurring events in Scrum/SAFe and other Agile frameworks i.e. standup, refinement, sprint review.

Sprint review	What happens at the end of a sprint. The stakeholders, the Product Owner and the development team should share what has changed in the software system. A demo is the preferred way of sharing this - and always ask questions!
Refinement	The act of improving the quality of users stories, issues and bugs through discussion and exploration between users and developers.
Backlog (n)	An ordered list of requirements for a software change.
User Story (n)	A way of defining an Issue such that it provides a benefit to a certain type of user. Typically of the form "As a X I would like Y such that I can achieve Z" e.g. "As a Super User I would like the ability to maintaining the mailing list so that I'm not dependent on our vendor to make these changes/speed up the process".
Roadmap (n)	A plan to deliver a plan. Sometimes a roadmap is discussed in terms of a project plan with milestones. It's making change visible.
Release (n)	A software system update which is ready for users to start working with.
Change Management	For IT projects this is the process by which a new release of software is

## Digital Transformation

The term is everywhere? What does it mean? I take it to mean:

"The process whereby an organisation makes a collective, substantive change to its I.T. direction and strategy".

The important words here being "collective" (it usually effects a large proportion of the organisation) and "substantive" meaning it's a 'non-trivial' amount of change.

Digital Transformation	The process whereby an organisation makes
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	a collective, substantive change to its I.T. direction and strategy
Migration	Anything that means a change of system
User	The person who is using a software system
Developer	The person who is responsible for changing a software system or process.
Administrator	The person who is controlling a software system and can provide elevated rights or permissions.
Rights/Permissions	The things that a certain type of user of a system is allowed to do.
Role	A type of user may be assigned a role which gives them certain responsibilities in a software system i.e. Administrator, Super User, Normal User, Manager
Data migration	Moving data (usually from a database) from one system to another. Sometimes with a 'mapping'.
Mapping	The process of understanding how data is transformed when moving it between systems.
Cloud	Typically refers to computers that are hosted in a Data Centre which are configured with software to enable advanced features.
Hosting	Can refer to the physical hosting of a computer (i.e. in a Data Centre) or the virtual hosting of a domain (a website) on a server something.
Cloud storage	
Public Cloud	An internet connected third party service such as Microsoft Azure or Amazon Web Services (AWS) which provided commodity compute, networking and storage.
Private Cloud	A third party or Data Centre service which is not directly connected or accessible by the Internet. (This can be built within 'Public Cloud' offerings).

Domain	A website address i.e. www.example.com
Top Level Domain (TLD)	The 'root' domain i.e. example.com
DNS (Domain Naming Service)	The way that domain names resolve to IP addresses. This is the engine that drives the internet.
CRM	Customer Relationship Management (System)
Datawarehouse	Outmoded name for a large database system
Datalake	Modern way of talking about unstructured data
Big Data	Faddish term about databases
A.I. or AI	Artificial Intelligence
M.L. or ML	Machine Learning
I.P. or IP Address	Internet Protocol address. The address of a system on the internet.
Internet	The globally connected computer network originally created in the 1960s which first gained prominence in the 1990s.
Intranet (L.A.N. or LAN)	Intranet or Local Area Network (LAN)
W.A.N. or WAN	Wide Area Network (WAN)

## IT People

Project Manager (PM)	Someone who is responsible for delivering a project successfully. Can also be responsible for the budget.
Stakeholder	Anyone who has a vested interest in the running or outcome of a project.
Operations	The people who run the software systems in your organisation, not the people who deliver or integrate the systems.

Developer	In a project sense, can refer to either a single developer or sometimes a development firm (third party). In Agile, a member of the development team.
Vendor	Another name for a third party organisation that provides goods or services.
Product Owner (PO)	From Agile - is responsible for a product backlog. Is responsible for deciding what the Development Team will work on next.
Development Team	(Agile) A group of developers responsible for delivering value for the product.
Product Manager (also sometimes PM or PdM)	If a software system is seen as a 'product' then a 'product manager' is the person in charge of deciding the roadmap from a 'product' viewpoint.
Architect	A senior developer usually tasked with designing the system or making the most important 'architectural' decisions with the software piece.
Chief Technology Officer (CTO)	An expensive architect who might also be in charge of operations and line manage development team or teams.
Business Analyst (BA)	A person who translates business needs (from users) into specifications for consumption by developers. A good BA will improve the quality and speed of software change delivery.
Tester	Someone who tests the software to ensure quality.

## Problem-Solving Techie Speak

Bottom-up approach	Looking at the problem from the details you can see upwards towards the systems. For
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	example looking at data in a database.
Top-down approach	Looking at the problem from the systems point of view i.e.
Context	The environment that a piece of software (or sometimes hardware) lives in.
Debugging	The process of fixing problems with code.
Algorithm	A set of rules a computer program follows to solve a particular problem.
Heuristic	An optimisation or shortcut for an algorithm to take
Optimisation	Improving a process to make it work more quickly or use less resources

## Developer Slang

“Non-trivial” i.e. “amount of work”	A lot of work
Deliverable	Could be a document, could be a piece of software. Something that usually a developer or business analyst is responsible for.
Artifact	
Iterate	To repeatedly try a solution, change something, try again and see if it fixes the problem or delivers the functionality.
Functionality	The way a piece of software works. A software feature.
Feature	A piece of work by a developer which delivers a new way of working to the user.
Change Request (C.R.)	A way of formally specifying a change to some software (old fashioned, see ‘Issue’).
Bug	A report that a piece of software isn’t working as intended or agreed with the developer.
Issue	A request for a change in the way a piece of software works (change in functionality)

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Resolve	In development: to fix something. In DNS (Domain Naming Service) to turn a domain name into an IP address.
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