LODDON MALLEE REGION
UNIVERSITY OF THE THIRD AGE

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Starting a Website

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Starting a Website

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These notes and the files used in the workshop
can be downloaded in a zipped archive from:
http://u3abendigo.com/ddo2017/ddo_usb.zip

Individuals, U3As and Community Groups
may use these files for non-profit purposes.

Starting A Website

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About These Notes

These notes encapsulate arrangements and practices put in place at U3A Bendigo in recent years. They were prepared for the Loddon Mallee U3As Digital Day Out 2017.

Some years ago, technology support at U3A Bendigo was heaped on the shoulders of one member who occupied the roles of Administration Office IT support and Website Management and convened a Computer Users Group—a massive load, too onerous for one person to bear. In 2015 U3A Bendigo's Committee of Management resolved to form a working party to advise it on technology matters.

The President co-opted four members to form a Technology Advisory Group. Their first task was to form a website management working party to spread the load of maintaining the site. They then surveyed the members re their use of media and online technologies. A questionnaire was posted to four hundred member households—two hundred and twenty completed returns came back. Among other things, the membership told the Committee of Management of a pressing need for U3A activities that would assist them to get more from or to get started with their smartphones, tablets, PCs, smart TVs, media players, eBook readers, digital cameras, etc. and how to access broadband, set up WiFi modems, download files from the internet, access streaming services, ensure online security, etc., etc..

The Committee of Management called for assistance from the membership to meet that pent-up demand. A dozen volunteers came forward. Two working parties were formed. The Technology Support Team runs U3A Bendigo's Learning About Your Technology program. The Online Services Team is responsible for setting

A Technology Support Team member in action with her Learning About Your Technology Group.

up, managing, and training members to use our online services: the WiFi Network, our local Network Server and the U3A Bendigo website.

More information about U3A Bendigo's Technology Support Teams can be found on:
> The Loddon Mallee Digital Day Out page:
>> http://u3abendigo.com/ddo2017
> The U3A Bendigo Learning About Your Technology page:
>> http://u3abendigo.com/layt

I am proud of U3A Bendigo's Technology Support Teams. I hope these notes, based on the work they do, will assist other U3A find their paths to success in these matters.

Michael Gallagher
U3A Bendigo Technology Support Convener
3rd May 2017

Website Management
An Ongoing U3A Team Activity

The work of maintaining a U3A website, particularly one that is frequently updated, is best done by a team.

Treat the challenge of planning, setting up and managing your website not as a chore but as another activity that your U3A offers its members.
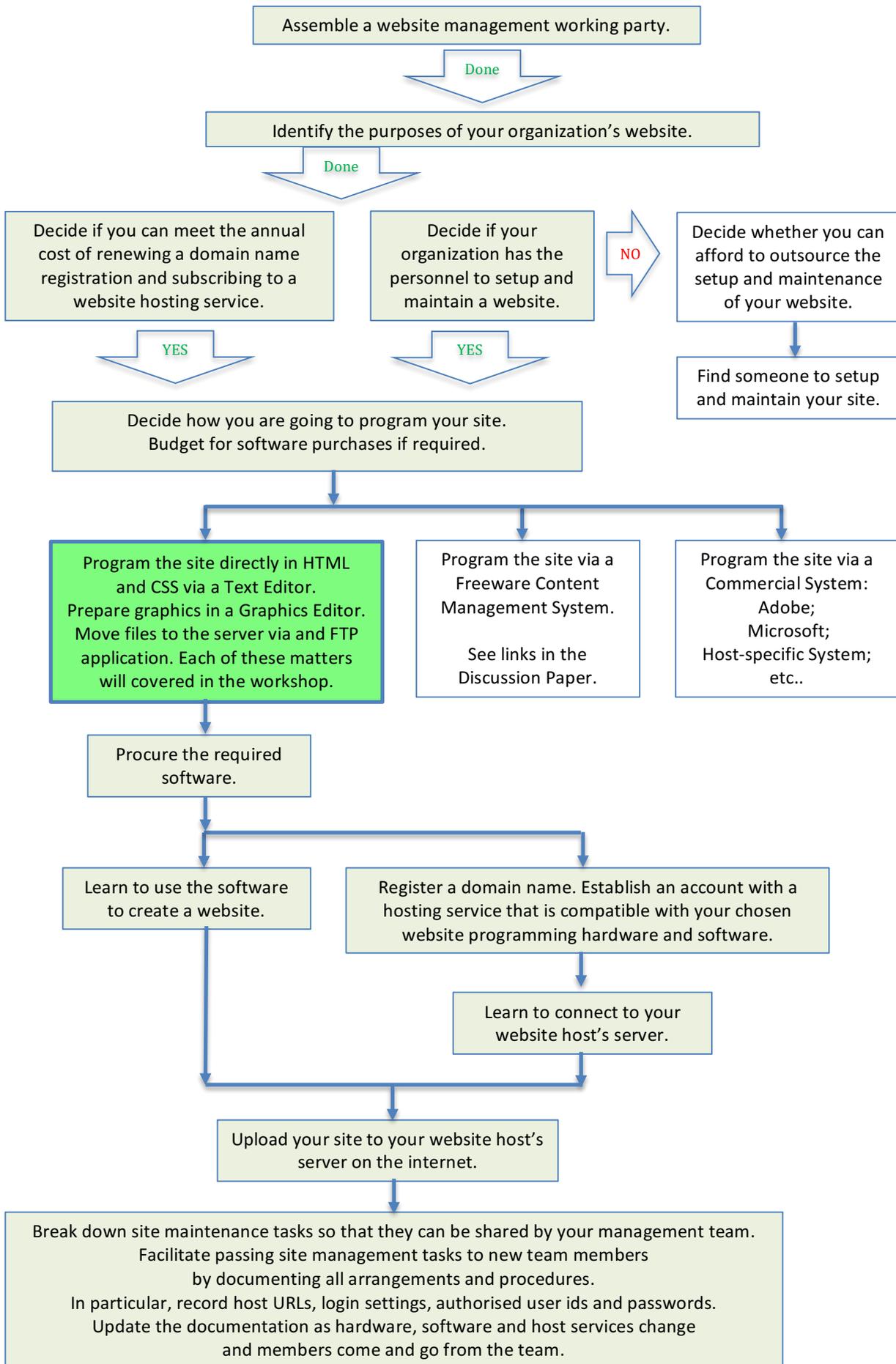
Break down the task of managing your U3A's website into a set of manageable chunks. Form a team of members willing to take on the various roles. Create shared roles so tasks can continue as members come and go from the team.

Seek out members with skills and experience in writing, proofreading, librarianship, information presentation, procedure documentation, website design, graphics design, web page programming, PC training and user support, remote server access and network account management.

Don't expect anyone to know everything about website management. Some U3As may have members with skill sets polished by years of experience and who are willing to train and support others. In many U3As the members will have minimal experience, but some will be keen learn how to make web pages and manage a website. Learning is what U3As are about, so treat the task of managing your U3A's website as a U3A learning activity.

Prioritize the task of building your site. Start with the simple tasks. Meet monthly to share skills, assist each other solve problems and oversee the setup and management of the website.

The rewards of being part of a well-functioning team are great. Team members can expect to learn how to program web pages and manage the website. But they can also expect to gain personally useful digital competencies, to become more competent users of their own digital devices, to become better at solving technology problems because they work in a team whose purpose is to solve all the problems associated with getting a website up and running—all this in addition to the satisfaction they gain from working together to make the U3A's website an important source of information for the membership and a billboard for attracting new members.

Assemble a website management working party.

Done

Identify the purposes of your organization's website.

Done

Decide if you can meet the annual cost of renewing a domain name registration and subscribing to a website hosting service.

Decide if your organization has the personnel to setup and maintain a website.

NO

Decide whether you can afford to outsource the setup and maintenance of your website.

YES

YES

Find someone to setup and maintain your site.

Decide how you are going to program your site. Budget for software purchases if required.

Program the site directly in HTML and CSS via a Text Editor. Prepare graphics in a Graphics Editor. Move files to the server via and FTP application. Each of these matters will covered in the workshop.

Program the site via a Freeware Content Management System.

See links in the Discussion Paper.

Program the site via a Commercial System:
Adobe;
Microsoft;
Host-specific System;
etc..

Procure the required software.

Learn to use the software to create a website.

Register a domain name. Establish an account with a hosting service that is compatible with your chosen website programming hardware and software.

Learn to connect to your website host's server.

Upload your site to your website host's server on the internet.

Break down site maintenance tasks so that they can be shared by your management team.
Facilitate passing site management tasks to new team members
by documenting all arrangements and procedures.
In particular, record host URLs, login settings, authorised user ids and passwords.
Update the documentation as hardware, software and host services change
and members come and go from the team.

Starting Website for a Voluntary Organization

Michael Gallagher, U3A Bendigo

3rd Msy 2017

This discussion paper provides advice on setting up a website for a small, voluntary organization. Implementation details are placed in the footnotes. Many technical terms used without explanation are explained in the glossary, page 10.

A website is a set of files that is made available online by webserver software running on a server computer[1] attached to the Internet. Most small organizations place their website on a hosting service—the hosting company maintains the server computer and guarantees uptime, bandwidth availability and data backup. With the hardware taken care of, the organization can put its effort into setting up the site and maintaining content.

A substantial level of commitment and skill is required to set up and maintain a website that continues to serve its design purpose for a long period. A check list of some things the members of a small voluntary organization should agree upon in the site setup planning stage is set out below.

- Assemble a working party to manage your Website. A simple static site excepted, the management of a website for an organization is too burdensome for one person. Your first task should be to form a planning and management team.

  A simple site can be managed by a small team. The skill set required by its members depends upon the nature of the website, but may include: team leadership, content management, writing, graphic design, page layout, image editing, web page programming, proof reading, data transfer and remote computing skills. Whatever type of site your group decides upon, be sure to create a management team. A team provides group members with mutual support and allows members to come and go as circumstances change without compromising the maintenance of the site.

- Identify the purposes of your website:
  a. Provide contact details for your organization.
  b. Communicate the nature of your organization with a view to attracting members.
  c. Communicate news items and information about courses and activities to members and the public.
  d. Distribute your organization's newsletter.
  e. Place an online archive of your organization's newsletters online.
  f. Place your organization's constitution and policy documents online.

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[1] Most small organizations avoid the expense of owning and operating the computer on which the webserver runs. The server computer must be able to handle the required traffic, store the data redundantly, run continuously, be protected against power failure and be automatically backed up. Such a system requires a considerable purchase outlay and setup expertise, regular replacement, on a cycle of about three years, and considerable IT management skills. The machine must have an internet connection that delivers fast upload and download speeds, an option that is considerably more expensive than a domestic broadband connection.

Perhaps you will also want to:

g. Set up a section of your site that is accessible only to members via a username and password.

h. Make it possible for conveners to distribute course and activity support material to the members of their groups.

i. Provide gallery, blog or discussion space where members can put up documents, images, etc. and make it possible for viewers respond with comments and suggestions.

j. Obtain feedback from members via online surveys and questionnaires you set up on the website.

Each purpose you identify adds to the complexity of setting up and maintaining the site. Some organizations do not have the personnel or skills to set up and maintain an elaborate, frequently-updated site—they might decide upon a simple, static site that implements perhaps only purposes *a* and *b* above.

Your website management team might establish a set of purposes and then prioritize them in order of implementation. It would be best to start with a simple site that slowly grows in complexity as your team develops the skills required to create the site that meets all your purposes.

- Budget to meet the annual cost of renewing a domain name registration[2] and subscribing to a website hosting service[3].
- Register a Domain Name[4]. Establish an account with a hosting service[5]. The hosting service should support your content management system.
- Decide whether you are going to program your site via a Website Content Management System or by programming it directly.

Three, popular, cost-free Content Management Systems[6] are WordPress[7], Joomla[8] and Drupal[9]. Content Management systems automate many aspects of

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[2] Registration involves payment of an annual fee—expect to pay $10 to $20 per annum.

[3] Costs vary from a few dollars per month to hundreds of dollars per month as do the services offered. Check that the services offered meet your organization's needs before signing up to an account.

[4] A domain name becomes the address of your website: *u3abendigo.com*, for example. Numerous companies in Australia and overseas offer domain name registration services. Check with your IP Provider whether they offer a domain name registration service and a website hosting service. Do some research on the Internet. Here are some Australian companies:

> http://www.crucial.com.au/wordpress-hosting/
> https://www.melbourneit.com.au/
> http://www.netregistry.com.au

[5] Many companies that offer website hosting also offer domain name registration—each of the companies listed above, for example, offers both services. Some companies offer "free" domain name registration. Before you register, check whether advertisements would be attached to your webpages and check that the domain name you would assigned is transferable—if it became necessary to change hosts, it would be best if you could continue to use your domain name on the new host. Some hosting sites are business oriented. Some hosting organizations are community group friendly.

[6] A website is a set of text files, image files, PDF documents, etc., associated via embedded links. Content Management System (CMS) software organizes all the files on the site and automatically encode the sites pages, thereby reducing the level of technical skill users require to manage the site.

web page programming. They enable the user to create attractive webpages by selecting from a set of page templates, selecting tools from a palette, copying and pasting text, dragging and dropping graphics, etc.. Content Management System software may run from the host server or it may be installed on a local machine with site content being prepared locally and then uploaded to the remote site.

Web page programming[10] involves learning how to code webpages in HTML[11], CSS[12] and perhaps a scripting language[13]. Web page programming is done via an HTML programming editor[14]. Simple sites can be created once a basic grasp of HTML programming has been mastered[15]. Web pages are often made on a local PC and then moved onto the host server via an FTP application. Another approach is to log onto a remote server via WebDAV or VPN, software that allows the files on a remote host site to be edited directly.

- Learn to create content and move it to the remote server.

You may have team members with experience in website setup and maintenance who are willing and able to teach others how they do things[16]. If your team lacks expertise, search out a group with a well-maintained site that is willing to discuss options with you and perhaps have members of your team sit in while they work on their site. If you cannot contact such a group, ask Google. There are many sites on the Internet that will assist your team to develop the required skills. The W3Schools site: https://w3schools.com Is an excellent place to start.

With perseverance and mutual support, in time, your website management team will develop website content placement expertise. Take care to spread that expertise to ensure that management of your site continues as members come and go from your team.

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[7] WordPress Home Page: https://wordpress.org;
  Wikipedia Article: https://en.wikipedia.org/wiki/WordPress

[8] Joomla Home Page: https://www.joomla.org;
  Wikipedia Article: https://en.wikipedia.org/wiki/Joomla

[9] Drupal Home Page: https://www.drupal.org;
   Wikipedia Article: https://en.wikipedia.org/wiki/Drupal

[10] Professionals prefer to program websites directly rather than via a Content Management System because of the greater control they gain over the finished product.

[11] Hypertext Markup Language is the programming language used to encode web pages.

[12] CSS is a system for formatting the content of web pages.

[13] Scripting Languages such a JavaScript add interactive content to web pages.

[14] The Freeware HTML Editor, Bluefish for example. It runs on Windows and Macintosh PCs. It can be downloaded from: http://bluefish.openoffice.nl/index.html

[15] There are many web site programming tutorials on the Internet. A good place to start is: http://www.w3schools.com/default.asp

[16] Be aware, however, that website technology is constantly changing. Stay up to date with developments. HTML 5 (released in 2104) is the current programming standard.

Glossary of Terms

Ordered to read as explanation of how devices on the internet are connected and web pages are programmed.

Internet
A world-wide network of interconnected computers capable of sending and receiving data packets to and from each other.

Internet Address (IP Address)
A unique address for every device on the Internet that enables data to be delivered. (See Transfer Protocols below). An IP address is usually specified as four groups of numerals separated by dots. For example: 203.2.218.214.

Domain Name
The address of a device on the Internet specified by a set of letter combinations separated by dots. For example: abc.net.au, and sbs.com.au

Domain Name Service
A server on the internet that resolves domain names into numeric IP Addresses that machines use. For example:
abc.net.au resolves to *203.2.218.214*

Server
A computer on the Internet that delivers services to online users.

Web Server
Software on a Server computer that delivers information on request to online users via web browser software on client devices such as PCs, tablets and smart phones

Website
The set of files that generate the web pages users see when they browse an Internet site.

Web Browser
Software running on a PC, tablet, mobile phone, digital media player, etc. that allows the user to view website content.

Web Page
Web pages display the text, images and links to other files that users see when they browse the internet. They are programmed in HTML (see below).

File
A set of digital data that encodes text, images, audio, etc., for storage in digital memory and transfer across network connections.

File Extension
A code at the end of a filename that indicates the nature of the data encoded in the file. Some common Internet file types are:

.HTM, .HTML	Web page files
.JPG, .GIF, .PNG	Image files
.CSS	Stylesheet files
.PDF	Page Description Format document files

Filepath
Concise directions for accessing or linking to a file via HTML code. For example, the filepath shown in red in this code line:

<img src="fruit/apples/granny_smith.jpg">

directs the browser to display an image from the folder *apples* in the folder *fruit*.

HTML
The acronym for **Hypertext Markup Language**, the programming language used to display, text, images, audio, video and other data on web pages, and establish links to other pages.

HTML file
A text file containing HTML code that displays a web page.

CSS
The acronym for **Cascading Stylesheets,** a standardized webpage coding system for formatting web pages—setting the font, font size, colour, page layout and the general look of web pages.

CSS Stylesheet file
A text file containing CSS code that specifies how the elements on a web page are displayed. A single Stylesheet file might specify the look of all pages on a web site.

Scripting Language
A system for coding web page interactivity over and above that which is possible via standard HTML. For example, the JavaScript language and the PHP scripting language.

CMS
The acronym for **Content Management System**
A semi-automated way of creating and managing the HTML and other files that constitute the pages on an internet site

CMS software
software that automates web page programming and website management via page templates, tool palettes, copy and paste and, drag and drop of graphics, automatic synchronization of local and remote site content, etc..

Text Editor
Software that creates plain text files, devoid of the formatting code that standard word processor software embeds in the text.

HTML Editor
An editor designed to create and edit HTML files. Features include: colour-coded text; syntax checking, search and replace across multiple files and the saving of file set as a project.

Internet Data Transfer Protocols

HTTP	A set of data transfer standards that allows browsers to communicate with web servers and view web page data.
HTTPS	A standard way of encrypting web data transmissions to ensure security.
FTP	A standard way of transferring files from one device to another across the internet.
WebDAV	A standard that allows files stored on a remote server to be edited in situ.
VPN	A standard that allows data on a remote server to be accessed by a local PC as if were a locally attached storage space.