

ARABIC WINDOWS: ARABICIZING WINDOWS APPLICATIONS TO READ AND WRITE ARABIC

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ABSTRACT

A major obstacle in the teaching of Arabic as a foreign language has been the dearth of technological resources available for both teacher and student. This article is the first step in filling this niche by providing the teacher, student, and home computer user with the ability to access Arabic on the Internet and to word-process in Arabic, irrespective of their current computer operating system and software versions. This article is technical in nature. It provides detailed instructions for enabling reading and typing Arabic capabilities within: 1) all Microsoft Windows operating system versions, 2) the latest and most common versions of Microsoft Word and WordPerfect, and 3) Internet web browsers such as Netscape Navigator, Mozilla, and Internet Explorer.

INTRODUCTION²

A major obstacle in the teaching of Arabic as a foreign language has been the dearth of technological resources available for both teacher and student. This paper is the first step in filling this niche by providing the average student and home computer user with the ability to access Arabic on the Internet and to word-process in Arabic, irrespective of their current computer operating system and software versions.

This paper is technical in nature. It provides detailed instructions for enabling reading and typing Arabic capabilities within:

- all Microsoft Windows operating system versions,
- the most common versions of Microsoft Word and WordPerfect, and
- Internet web browsers such as Netscape Navigator, Mozilla, and Internet Explorer.

This paper also discusses useful, time-tested hints and resources for typing and editing Arabic within Windows including:

- enabling the free On-Screen Arabic Keyboard,
- installing the free Arabic Visual Keyboard,
- purchasing Arabic keyboard stickers (AKA overlays or keytop labels),
- purchasing English/ Arabic keyboards,

¹ I would like to thank the Arabic Language, Literature & Linguistics department faculty and staff at Georgetown University for all their computer related questions, without which this paper may never have materialized. I would especially like to thank Professor Karin C. Ryding for her trust and confidence in my abilities and for her foresight into the need for home user Arabic Internet and word-processing literacy. Lastly, great thanks go to my best-friend and loving wife, Liana Sebastian, for her patience and support during those nights I served as the resident information technology guru first and her husband second.

² This paper has been adapted from a manuscript the author is currently writing on resources for Arabic language study in America.

- defining Arabic keyboards for Arabic language fonts and Arabic transliteration fonts,
- installing a free Arabic QWERTY/ phonetically defined keyboard,
- extending support of Arabic to all programs in Windows,
- typing non-Roman fonts, like Arabic, right-to-left in most versions of Microsoft Word,
- detecting the Arabic language automatically in Microsoft Word
- enabling the Arabic Proofing Tools,
- typing Hindi and Arabic numbers,
- smoothing Arabic screen fonts,
- installing free Arabic fonts,
- installing free Arabic transliteration fonts, and
- freely and efficiently sharing Arabic documents with other users as PDF files.

Step 1: Should I enable Arabic in Windows, Word, or both?

The version of the word-processing program on your computer plays a central role in the level of ease with which you can effectively work in Arabic. During the early days of Windows, one was required to enable their operating system with Arabic by purchasing additional Windows software and installing it over their current Windows version. When Microsoft began supporting right-to-left non-Roman fonts within their flagship program, Microsoft Word, it no longer became necessary to enable an operating system for Arabic, since one could simply enable Word for Arabic and not the entire Windows operating system.

Thus it is possible to have an older Windows operating system running a newer version of Word, and be able to type in Arabic within Word and the Internet only, but not within other programs. For example, it is possible to run Microsoft Word 2000 within the Windows 98 operating system and successfully word-process in Arabic as well as read and type in Arabic on the World Wide Web.

Luckily for new PC owners, the newest versions of Windows come with Arabic scripting enabled, *and* the newest word-processing programs also come Arabic-enabled. This combination makes for seamless right-to-left Arabic scripting in various Windows applications, including but not limited to Microsoft Word, Microsoft PowerPoint, Microsoft Publisher, Microsoft FrontPage, Microsoft Outlook, Microsoft Excel, WordPerfect, Eudora, Internet Explorer, Mozilla, and Netscape Navigator.

Step 2: How to determine the version of your Windows operating system³

Arabic works seamlessly in the newest versions of Windows, Windows XP and Windows 2000. To determine which Windows operating system you are running on your PC, begin by right clicking on My Computer from the Desktop. Scroll down the dialogue box and left click on Properties. Left click the General tab on the top left of the box that appears. Under System, read about your computer operating system. If your operating system is Microsoft

³ This paper focuses exclusively on Arabic support for Windows applications. Those interested in Arabic language support for the Macintosh and for Linux and UNIX environments should consult <http://www.hf.uib.no/i/smi/ksv/> and <http://www.langbox.com/arabic/>, respectively.

Windows ME, Windows 2000 Professional, Windows XP Home or Windows XP Pro, then continue to Step 3a.⁴

If your operating system is Microsoft Windows 98 or Windows 98 SE, then the instructions below will aid you in adding Arabic to Windows. You should note however, that some items will appear differently and some functions will operate differently than the same items in newer versions of Windows. I have discussed many of these differences at length below. Continue to Step 3a.

If your operating system is Microsoft Windows 95a, Windows 95b, or Windows 95c your Windows operating system does not come enabled with Arabic support. Therefore you will need separate program CDs or disks (apart from the Windows and Office CDs) to either arabicize your entire Windows operating system or simply your word-processing program, depending upon your specific computing needs. Contact an information technology (IT) specialist to help you in this regard.

Step 3a: How to determine the version of Microsoft Word or WordPerfect

To determine the version of your word-processing program, open the program you use to write most of your documents. You should see the word Help on one of the toolbars at the very top-middle of the page. Left click on Help and left click again on the item in the menu labeled About X, where X represents the program you are using. About X is usually one of the very last options available in the menu. After left clicking on About X, a box will appear that tells you the precise version of your word-processing program.

Microsoft has recently released its newest office suit, Microsoft Office 2003. Word 2003 (within Office 2003) bests all prior word-processing programs with respect to reading and writing Arabic script. The below web site details what's new for Arabic in Office 2003 in addition to extra on-line Arabic features:

<http://www.microsoft.com/middleeast/arabicdev/office/>. If you are considering upgrading to Office 2003, which I highly recommend, be sure to read the section titled Arabic Proofing Tools found by left clicking the first link in the above site. Note that the Microsoft Office 2003 Proofing Tools CD must be purchased separately from Microsoft Office 2003 CDs and can be found here for direct purchase:

<http://www.microsoft.com/products/info/product.aspx?view=22&pcid=071b9ced-ed82-47ef-b5fa-a42ecbdec9b7&type=ovr>.

When composing and editing in Arabic, it is my experience that Microsoft Word 2003 (AKA Microsoft Word 11) functions more smoothly than Microsoft Word 2002 (AKA

⁴ Because Microsoft continues to support Windows 2000 and Windows XP, they have instructions of their own for enabling international language support in these two versions of Windows. Their instructions are extremely helpful due to their use of screen shots to guide users through this process. If you want to add Arabic support to Windows 2000, Windows XP, Windows XP Tablet PC Edition, or Windows XP Server 2003, I encourage you to read the appropriate site below first. For Windows 2000, visit

<http://www.microsoft.com/globaldev/handson/user/2kintl supp.msp x>.

For Windows XP and Windows XP Server 2003, visit

<http://www.microsoft.com/globaldev/handson/user/xpintl supp.msp x>. For Windows XP Tablet PC Edition, visit

<http://www.microsoft.com/middleeast/arabicdev/Windows/winXP/wPapersTP.asp>.

Microsoft Word 10 or XP), which functions more smoothly than Microsoft Word 2000 (AKA Microsoft Word 9). In fact, Microsoft Office 2003 (AKA Office 11)'s Arabic spelling checker, grammar checker, and thesaurus are more stable and more comprehensible in my experience than those in previous versions of Microsoft Word. Microsoft Office 2003's Arabic capabilities are currently better than anything WordPerfect has to offer.

Likewise, WordPerfect 10 (AKA WordPerfect 2002) and above is friendlier to all things Arabic than WordPerfect 9 (AKA WordPerfect 2000). I do not advise using Arabic with earlier versions of either Word or WordPerfect while also running Windows 95 unless you have Microsoft Word Arabic 6.0 installed. But that's another story.

If you own an older version of either of these word-processing programs, my advice is to upgrade, provided your computer has the memory and physical space to maintain a newer word-processor. If an upgrade is not possible, then consult with an IT specialist on what your system may require in order for you to read Arabic and type in Arabic.

Step 3b: How to enable Windows to read Arabic fonts⁵

Before continuing, have your Microsoft Windows and Office CDs on hand should you need to install extra components not previously installed.

For Windows XP Home and Windows XP Pro users, follow these instructions. Left click on Start. Left click on Control Panel. Double-left click on Regional and Language Options. Left click on the Regional Options tab on the top of the box that appears. Keep the Standards and Formats as English (United States). Left click on the Languages tab at the top of the box. Under Supplemental Language Support, tick the box that says Install Files for Complex Scripts and Right-to-Left Languages (including Thai). Now click the Apply button located on the bottom right of the box. Wait while your computer installs the files needed. Insert the Windows XP CDs if requested to do so. Click the OK button located on the bottom left of the box to complete the process. Restart your PC if requested to do so.

For Windows 2000 Professional users, follow these instructions. Left click on Start. Left click on Settings. Left click on Control Panel. Double-left click on Regional Settings. Left click on the tab labeled General at the top of the screen that appears. Keep the Your Locale (Location) as English (United States). On the same screen, under Language Settings for the System, tick the Arabic box. Now left click on the Apply button located on the bottom right. If your operating system needs additional files to run this function you will be asked to insert the necessary CDs. If these files have already been installed on your operating system, they will self install. You may be requested to restart the computer. Do so.

For users of all other versions of Windows, abide by what follows. Left click on Start. Left click on Settings. Left click on Control Panel. Double-left click on Keyboard. Left click on the tab labeled Language at the top of the screen that appears. To add Arabic, left click on Add and scroll down to find Arabic. If Arabic does not appear, then you must install this language from the Windows CD or from the Windows Setup function within Add/Remove Programs, depending on how your system was originally configured.

Before giving up, users of all other versions of Windows should attempt the following. Left click on Start. Left click on Settings. Left click on Control Panel. Double-left click on Add/Remove Programs. Left click on the tab labeled Windows Setup. Scroll down the list

⁵ *N.B.*: All instructions reflect a classical layout of the Windows operating system and do not conform to the Windows XP enhanced layout.

of options. Tick the following boxes: Accessibility and Multilanguage Support. Left click on the Apply button. If you are asked to insert the Windows CDs, do so. Restart the computer. Now return back up to the previous instruction set and try enabling your PC to read Arabic again. If the above instructions fail to enable your PC to read Arabic, continue to Step 4 anyway for more solutions.

Step 4a: How to enable Windows XP Home and Windows XP Pro users to type in Arabic

For Windows XP Home and Windows XP Pro users, follow these **five** instructions. **1** Left click on Start. Left click on Control Panel. Double-left click on Regional and Language Options. Left click on the Languages tab at the top of the box. Under Text Services and Input Languages, left click on the Details... button. Left click on the Settings tab at the top of the box that appears. Under Installed Services left click on the Add... button on the right. An Add Input Language Box should appear. Add Arabic. You will see quite a few varieties of Arabic listed. These country specific versions of Arabic do not reflect any dialectical differences that may be enabled on your keyboard. Since no differences exist in the country choice, you may choose whichever country you wish that is labeled as Arabic.

2 In the same box, directly under Input Language, there is an area for selecting a Keyboard Layout from a drop-down menu. Scan the menu for an Arabic keyboard. Choose an Arabic keyboard and then left click on the OK button.

3 There are minor differences in the keyboard layouts available from Microsoft. The keyboard you choose will determine which Arabic letters correspond to the English letters on the keyboard in front of you. If you are a beginning user of Arabic, then any of the three available options (Arabic 101, Arabic 102, or Arabic 102 AZERTY) will do. More advanced users probably have a favorite, especially if coming from the Arabic-speaking and Arabic-typing world. If you want to know the differences between the Arabic keyboards, see Step 5b below. If you want to know which Arabic keyboard layouts of the above three is my favorite, the simple answer is none of them. See step 6c for the Arabic keyboard layout I use most. But for now, choose any of the three Arabic keyboard layout options and then left click on the OK button.

4 You should be back at the Text Services and Input Languages box. Keep the Default Input Language English (United States)–US. Under Preferences left click the Language Bar... button. A Language Bar Settings box should appear. Tick the box that says Show the Language Bar on the Desktop and tick the box that says Show Additional Language Bar Icons in the Taskbar. Finally, left click on the OK button.

5 A box with an EN (short for English) blue block should appear on the Taskbar on the bottom right hand corner or on the top right of your computer screen. Left clicking on the EN will allow you to switch from one input language to another, in this case from English to Arabic. Right clicking on the EN block and then left clicking on Settings will allow you easy access to enabling additional input languages and keyboard layouts on your PC. Continue to Step 5.

Step 4b: How to enable all other Windows users to type Arabic fonts

For all other Windows users follow these **four** instructions. **1** Left click on Start. Left click on Settings. Left click on Control Panel. Double-left click on Keyboard. Left click on

the tab labeled Input Locales or labeled Language at the top of the screen that appears. Left click on the Change button. For those users who do not see a box with a Change button in it, left click on the Add... button. A Text Services box will appear, an Add Input Locale box will appear or an Add Language box will appear. The Default Input Language should remain English (United States). If there is a box titled Installed Services, left click the Add... button and search for Arabic. If such a box does not appear, simply search for Arabic. If Arabic is not among the additional language options, then you will need to do one of two things, or both: 1) install Arabic Language Support from <http://windowsupdate.microsoft.com> and <http://office.microsoft.com/productupdates/>, or 2) install a higher version of Microsoft Office and enable the Microsoft Office Language Settings for Arabic. However, if Arabic is among the many options, then you will see quite a few varieties of Arabic listed. These country specific versions of Arabic do not reflect any dialectical differences that may be enabled on your keyboard. Since no differences exist in the country choice, you may choose whichever country you wish that is labeled as Arabic.

2 In the same box, under Input Language, there is an area for selecting a keyboard type from a drop-down menu. First be sure the box labeled Keyboard Layout is ticked and then scan the menu for an Arabic keyboard. Some versions of Windows take you directly to Keyboard Layout within the Add Input Locale box. If so, do what is intuitive; Scan the menu for an Arabic keyboard.

3 There are minor differences in the keyboard layouts available from Microsoft. The keyboard you choose will determine which Arabic letters correspond to the English letters on the keyboard in front of you. If you are a beginning user of Arabic, then any of the three available options (Arabic 101, Arabic 102, or Arabic 102 AZERTY) will do. More advanced users probably have a favorite, especially if coming from the Arabic-speaking and Arabic-typing world. If you want to know the differences between the Arabic keyboard layouts, see Step 5b below. If you want to know which Arabic keyboard layout of the above three is my favorite, the simple answer is none of them. See step 6c for the Arabic keyboard I use. But for now, choose any of the three Arabic keyboard layout options and then left click on the OK button.

4 Next, tick the box that says Enable Indicator on Taskbar. Finally, left click on the Apply button. A blue EN (short for English) block should appear on the Taskbar on the bottom right hand corner of your computer screen. Left clicking upon EN will allow you to switch from one input language to another, in this case from English to Arabic. Right clicking on the blue EN block and then left clicking on Properties... or Settings... will allow you easy access to enabling additional input languages and keyboard layouts on your PC.

Step 5a: How to enable the Arabic On-Screen Keyboard in Windows

Now that Arabic is enabled on your PC, how do you know which Arabic letters correspond to the English keys that are on your English keyboard? You can either purchase sticky, transparent overlays to place over your existing keyboard keys or you could purchase an Arabic/ English keyboard from a number of on-line companies. For these options, see Step 6a below.

An alternative, free option is to use Microsoft's built-in, free, virtual Arabic On-Screen keyboard. Left click on Start. Left click on Programs. Left click on Accessories. Left click on Accessibility. Left click on On-Screen Keyboard. You probably will want to create a

shortcut to the Arabic On-Screen Keyboard and place it on your desktop or Quick Launch Toolbar.

Microsoft Windows 98 SE, Windows 98, Windows 95c, Windows 95b and Windows 95a are not equipped with On-Screen Keyboard capabilities. If your Windows version does not belong to this class, then it may be the case that this feature either has been disabled or was never installed from your Windows CDs. Continue reading below to learn how to enable the On-Screen Keyboard in Windows. If your Windows version does belong to this class, go to Step 5c for a free alternative to the On-Screen Arabic Keyboard.

To enable the On-Screen Arabic Keyboard feature in Windows, begin by left clicking on Start. Left click on Settings. Left click on Control Panel. Double-left click on Add/Remove Programs. Left click on the tab labeled Windows Setup. Scroll down the list of options. Tick the following boxes: Accessibility and Multilanguage Support. Left click on Apply. If you are asked to insert your Windows CDs, do so. Restart the computer. Now go back up to the previous instruction set and try enabling the On-Screen Keyboard again. If this does not work, then contact an IT specialist to help you.

With the On-Screen Keyboard now open, open a new Microsoft Word document. Left click on the EN and left click again on Arabic. Moving your mouse over the On-Screen Keyboard will change it to an Arabic typeface. Now you know where the Arabic keys are! You can type Arabic directly on a document by left clicking the keys with your mouse! Who said typing in Arabic was difficult?

Step 5b: Microsoft Arabic keyboard layouts

What are the major differences between the Microsoft ARABIC (101), ARABIC (102), and ARABIC (102) AZERTY keyboards? Which one should I enable in Windows? Choose the three Arabic keyboards from this web site and see for yourself:

<http://www.microsoft.com/globaldev/reference/keyboards.aspx>. The three keyboards will appear in three separate pop-up windows for your perusal, so be sure to temporarily disable your pop-up ad blocker. To see different keyboard states, move your mouse over state keys such as Shift, Caps or Alt. You can also lock or unlock those keys by left clicking on them with your mouse.

Notice that the major difference between the 101 keyboard and both of the 102 keyboards is the placement of the Arabic letter *dhaal* on the top left of the 101 keyboard, directly above the Tab key. Also notice that the major difference between the 102 keyboard and the 102 AZERTY keyboard are the French characters in the place of the Arabic numerals on the AZERTY keyboard.

Which is my favorite Arabic keyboard layout? None of the above. See step 6c for the Arabic keyboard layout I use and recommend to others.

Step 5c: Installing the Arabic Visual Keyboard for Word 2000 and Word XP (2002)

The Microsoft Visual Keyboard is a utility which allows you to view the keyboard layout for each Input Locale or language within any Microsoft Office application. This is particularly helpful for computers running Microsoft Windows 98 SE, Windows 98, Windows 95c, Windows 95b or Windows 95a, since they are not equipped with the On-Screen Keyboard. (See Step 5a above.) Thus, Microsoft has created a Visual Keyboard for

these older operating systems if they are also running newer Office programs, such as Word 2000 or Word XP (2002).

I suggest installing this add-in if your Windows version does not support the Arabic On-Screen Keyboard. To download and install this add-in, go to <http://office.microsoft.com/downloads/2002/VkeyInst.aspx>. Note that before you can use the Arabic Visual Keyboard, you must first install the Arabic language (AKA Input Locale) on your system. To do this, see Steps 3 and 4 above.

Once you have the keyboard languages installed and the Visual Keyboard installed, using the Arabic Visual Keyboard is simple. To start the Arabic Visual Keyboard, left click on Start, then left click on Programs, and finally left click on Microsoft Office Tools. The Microsoft Visual Keyboard can be found herein. Left click on it. The keyboard for the current language appears. To switch languages, look for the blue block, two-letter keyboard language indicator on your taskbar. To see a list of the installed keyboard languages, click the indicator once. To switch to Arabic, left click on it from the list. Open Microsoft Word and begin typing in Arabic using the Visual Keyboard as a guide.

Step 6a: Purchasing Arabic keyboard stickers and US English/ Arabic keyboards

For a more permanent solution to Arabic typing, consider purchasing either Arabic keyboard stickers (otherwise known as overlays or keytop labels) or a US English/ Arabic Keyboard with both US English and Arabic letters factory-printed on the keys. Both the keyboard stickers and the US English/ Arabic keyboards are available from Fingertip Software (<http://www.fingertipsoft.com/arabic.html>). Be sure to shop around for the best price at these other reputable web sites: <http://www.customkeys.com/>, <http://www.arabickeyboards.com/>, and <http://www.datacal.com/dce/arabic-keyboards.htm>.

Step 6b: Defining your own keyboard layout for Arabic fonts

The Microsoft Keyboard Layout Creator (MSKLC), available here for download: <http://www.microsoft.com/globaldev/tools/msklc.msp>, allows you to define your own keyboard layout for the Arabic language fonts or Arabic transliteration/ romanization symbols. Doing so will also allow you to quickly and easily enter symbols with a simple keystroke. The MSKLC is only compatible with computers running Windows 2000 and Windows XP though.

Step 6c: Installing a free Arabic QWERTY/ phonetically defined keyboard

If you can not get accustomed to the Arabic keyboards provided by Microsoft and you do not want to define your own Arabic keyboard from scratch, I highly recommend using the Arabic keyboard available for download at the bottom of this web site:

<http://zsigri.tripod.com/fontboard/arabic.html>. This Arabic keyboard created by Zsigri Gyula more closely resembles the sounds and shapes of the US English QWERTY keyboard. It is extremely helpful if you do not type in Arabic on a regular basis, and it is without a doubt more intuitive than the Arabic keyboards Microsoft provides. If you are running Windows 98 SE or earlier, I suggest using the Microsoft Arabic Visual Keyboard (see Step 5b) in

conjunction with this Arabic QWERTY-phonetic keyboard for typing within Microsoft Word 2000 or Word XP (2002).

Step 7a: How to extend support of Arabic to all programs in Windows

Those users running Windows XP will want to enable Arabic in a host of other programs in addition to their favorite word-processing program. To do so, begin by left clicking on Start. Left click on Control Panel. Double-left click on Regional and Language Options. Left click on the Languages tab at the top of the box that appears. Under Text Services and Input Languages, left click on the Details... button. Left click on the Advanced tab at the top of the new box that appears. Tick the box that says Extend Support of Advanced Text Services to All Programs. Left click on the Apply button at the bottom of the box. Restart your computer if asked to do so.

Step 7b: How to enable right-to-left typing of Arabic in most versions of Microsoft Word

You will be typing Arabic backwards unless you enable the right-to-left cursor shift on your Microsoft Word toolbar. First open a new document in Microsoft Word. Hover your mouse over the word File on the top left of the toolbar. Right click. Move your mouse to the very bottom of the menu and left click on Customize... Left click on the Commands tab at the top of the box that appears. In the left Categories pane, scroll down and left click on the word Format. In the right Commands pane, scroll down until you find the Keyboard Language icon. It should look similar to the EN we saw earlier. Left click on the Keyboard Language icon and drag it to the toolbar and deposit it directly under the word File. Do the same with the Right-to-Left and Left-to-Right icons found directly beneath the Keyboard Language icon. These toolbar icons will serve as your shortcuts for switching between languages and typing directions as you compose your multilingual documents in Microsoft Word.

Step 8a: How to automatically detect the Arabic language in Microsoft Word

The stress-free method of using Arabic in Microsoft Word is to set it to automatically detect the language of the text that it is being typed. To do this, first open Microsoft Word. Left click on the Tools menu at the top of the screen, select Language, and then left click on Set Language. Left click on the box that says Detect Language Automatically. Finally left click on the OK button. Microsoft Word can now detect the Arabic that was installed by the Arabic Proofing Tools installation. Word also can check the spelling and grammar of text written in Arabic.

Step 8b: How to enable Arabic Proofing Tools in Microsoft Word⁶

Did you know that an Arabic spelling checker, an Arabic grammar checker, and an Arabic thesaurus are also available in Microsoft Word? They are found in the Arabic Proofing Tools and work best when using Microsoft Word 11 (AKA 2003) or Microsoft Word10 (AKA 2002 or XP).

To test whether or not you have the Arabic Proofing Tools installed on your computer, type some gibberish in Arabic, depress the F7 key, and see what happens. If the language is not recognized, then installing the Office XP Proofing Tools is necessary. Insert the Office XP Proofing Tools CD-ROM. Left click Start and then left click Run. Browse to find the following on the inserted CD-ROM: Ptksetup.exe. In the Proofing Tools Setup, select Custom for the type of Setup that you want to perform. Select the Arabic language Proofing Tools and then left click Run All from My Computer. After the installation finishes, reboot the computer.

Arabic Proofing Tools for Microsoft Office 2003 (AKA Microsoft Office 11) is not backward compatible with earlier versions of Microsoft Office. The Microsoft Office 2003 Proofing Tools CD must be purchased separately from the Microsoft Office 2003 CDs and can be found here for direct purchase:

<http://www.microsoft.com/products/info/product.aspx?view=22&pcid=071b9ced-ed82-47ef-b5fa-a42ecbdec9b7&type=ovr>. The below web site details what's new for Arabic in Office 2003 in addition to extra on-line Arabic features:

<http://www.microsoft.com/middleeast/arabicdev/office/>.

Step 8c: How to type Hindi and Arabic numbers in Microsoft Word

For Windows XP and Windows 2000 users, typing Hindi numerals is now easier than ever. Within the same new Microsoft Word document, left click on the word Tools on the top toolbar. Move to the bottom of the menu, and left click on Options.... Left click on the tab labeled Complex Scripts at the top of the new box. Under General and to the right of Numeral, scroll down the menu and select Context. Left click on the OK button. The Context feature will allow Windows XP and Windows 2000 users to use Arabic numbers (1, 2, 3, etc.) when typing in the EN input language (English) and Hindi numbers when typing in the AR (Arabic) input language.

Step 8d: How to smooth Arabic screen fonts

Using font smoothing makes Arabic and other related right-to-left languages easier to read on the computer screen. These instructions reflect a classical layout of the Windows operating system and do not conform to the Windows XP enhanced layout. In all versions of Windows, left click on Start, left click on Settings, and left click on Control Panel. Find the Display icon and double-left click on it. Next, left click on the Effects tab on the top of the

⁶ Microsoft Office Proofing Tools 2003 are available here for purchase:

<http://www.microsoft.com/products/info/product.aspx?view=22&pcid=071b9ced-ed82-47ef-b5fa-a42ecbdec9b7&type=ovr>. This newest Proofing Tools CD is equipped with:

<http://www.microsoft.com/office/editions/prodinfo/language/proofingtools-table1.msp>. The below web site details what's new for Arabic in Office 2003 in addition to extra on-line Arabic features: <http://www.microsoft.com/middleeast/arabicdev/office/>.

box that appears. Under Visual effects, left click on the “Smooth edges of screen fonts” box, so that a check mark appears within the box.

Step 9a: Free Arabic fonts

The favored Arabic font in Microsoft Word 2002? “Simplified Arabic” of course. All the diacritics appear separated from (i.e. not touching) the letters to which they belong, a rare find in the Arabic typing business.⁷

Arabic fonts for purchase can be found on many font vendors’ web sites. The Summer Institute of Linguistics, now commonly known as SIL International, hosts not only Arabic fonts for purchase (<http://www.sil.org/computing/fonts/>) but also resources for acquiring free Arabic fonts (<http://www.sil.org/computing/fonts/Lang/archives.html>).

Although not as pretty to the eye as purchased Arabic fonts, free Arabic fonts are available for download from numerous web sites. The best are included here. Professor Luc Devroye (<http://jeff.cs.mcgill.ca/~luc/arab.html>) hosts links and resources to many Arabic language fonts as does Professor Berlin (<http://user.dtcc.edu/~berlin/fonts.html>). Alan Wood provides Unicode Arabic fonts for Windows and Macintosh platforms (<http://www.alanwood.net/unicode/fonts.html>) in addition to a test for Unicode support in Web browsers (<http://www.alanwood.net/unicode/arabic.html>).

The Type Directors Club, an international typography organization, recently selected two winning entries in Arabic currently on display on their web site here:

<http://www.tdc.org/news/2003Results/ArabicType.html> and here:

<http://www.tdc.org/news/2003Results/Sakkal.html>. The entries reflect the work of Mamoun Sakkal, an international expert in Arabic and Islamic Art, Arabic Calligraphy, and Graphic and Web Design. His beautiful, award-winning web site and the fonts can be found here: <http://www.sakkal.com/type/index.html>.

Step 9b: Three free Arabic transliteration fonts⁸

Of the many Arabic transliteration fonts available for use in Windows, the **four** discussed below are the best, in my opinion. The first is provided by Microsoft for a fee. The latter three are available for free from various Internet sites. My recommendation is to download all of the freely available fonts and install them all on your computer first. If you are in need of a robust, stable, cross-platform, cross-computing Arabic transliteration system, then purchase the Microsoft font. For easy-to-follow instructions on how to install any font you

⁷ “Arabic Type: a challenge for the 2nd millennium”

(http://www.sakkal.com/articles/Arabic_Type_Article/Arabic_Type1.html) by Huda Smitshuijzen AbiFares provides the necessary background to the chronological and philosophical development of Arabic type fonts.

⁸ Which romanization, or transliteration, system is best? What are the benefits of using one system over another? Where can the different Arabic transliteration tables be found? The most comprehensive arrangement of this information is on Brian Whitaker’s Arab Gateway meta web site, <http://www.al-bab.com/arab/language/roman1.htm>. The best comparison chart of the different popular transliteration systems can be found in PDF format on this web site: <http://ee.www.ee/transliteration/pdf/Arabic.pdf>.

have download from the Internet, copy and paste this link in your Internet browser window:
<http://www.microsoft.com/typography/ttfinst/ttfinst.htm>.

1 Those with serious Arabic transliteration needs may be interested in purchasing or upgrading to Microsoft Word 2003 when it becomes available since it will include for the first time a font titled “Microsoft Arabic Typesetting,” an impressive solution to the Arabic romanization quagmire. Unfortunately for us all, Microsoft Arabic Typesetting currently is not available for earlier versions of Word due to licensing restrictions.⁹ Samples of this award winning font are available here: <http://www.middleeastmedievalists.org/compute.html> and here: <http://www.tdc.org/news/2003Results/Arabictype.html>.

In order to access the Arabic Microsoft Typesetting Font as well the Arabic spelling and grammar checking in Microsoft Word 2003, one must have installed separately the Microsoft Office Proofing Tools 2003 available here:
<http://www.microsoft.com/products/info/product.aspx?view=22&pcid=071b9ced-ed82-47ef-b5fa-a42ecbdec9b7&type=ovr>. Check to see if the Microsoft Office 2003 Suite you purchased contains this CD-ROM or the Proofing files. It is within the above Proofing Tools CD-ROM that the Arabic language font files exist. For instructions on how to install the Arabic Proofing Tools, consult the instructions that came with the CD-ROM or read my instructions in Step 8 above. Note that Microsoft Word 2003 and its Proofing Tools are currently not supported on any earlier versions of the Windows operating system other than Windows 2000 SP3 (Service Pack 3) and Windows XP.

2 By far, one of the best (pre-Microsoft Word 2003) free and comprehensive transliteration systems available can be downloaded from here:
<http://members.chello.nl/m.olnon/archive/contents.htm#distr>. The TITUS Cyberbit translation font is a product of an academic digitization and standardization project. Installation instructions are available on the above link. See the beauty of the transliteration font in action here if you still doubt:
http://members.chello.nl/m.olnon/archive/berat_raye.htm.

3 McGill University’s Institute of Islamic Studies has made available the Times New Arabic Font free for download. Their web site also provides a useful transliteration table for quick reference, instructions for using the Times New Arabic Font, and instructions for downloading and installing the font. Check them out here:
<http://www.arts.mcgill.ca/programs/islamic/info/font.html>.

4 The University of Zürich has eight font files and one instruction guide available for download as a single ZIP file on their web site. If you don’t read German, you can have <http://www.google.com/> translate the page for you by copying and pasting this link <http://www.ori.unizh.ch/ueberweg/orientalfont.html> in their search engine box. This Helvan and Timur font package looks and works very similar to the not so readily-available Times Arabic Font (not to be confused with the Times New Arabic Font). The University of Zürich Helvan and Timur fonts can are also available for Macintosh platforms.

Step 9c: Freely creating PDF files to efficiently share files with non-Roman fonts

⁹ For an understanding of the issues related to Unicode and Arabic romanization/ transliteration fonts used in Microsoft Word 2000, see “Software and Technology Review: Multilingual Computing in Middle East Studies” by Josef W. Meri available here:
<http://fp.arizona.edu/mesassoc/Bulletin/meri%20software.htm>.

A thorn in the side of those who compute in non-Roman font languages has been 1) attempting to access documents with non-Roman fonts away from your home computer, 2) attempting to print said documents from a printer not attached to your home computer, 3) and attempting to share said documents with other users via e-mail.

Now that you can create files using Arabic language fonts and Arabic transliteration fonts, how is it possible to share the files you have created without installing the exact same operating system, the exact same word-processor program version, and the exact same font package on another user's computer? The answer is by converting your WordPerfect or Microsoft Word document to a PDF (Portable Document Format) file in order to preserve your precious fonts.

Employing a PDF file extension (i.e. a .pdf as opposed to a .doc or .wpd file extension) allows you to share an Arabic document with others without worrying about the other users' operating systems and font packages, or lack thereof. Downloading and installing Adobe Acrobat Reader if you do not already have it is the first step in this process. The Reader is freely available from here: <http://www.adobe.com/products/acrobat/readstep2.html>. This program will allow you to read PDF files.

The ability to read PDF files is provided for free by Adobe Acrobat; however the ability to *create* PDF files is not provided for free. Well, almost not. In the most recent version of WordPerfect, the ability to create PDF files has been fully integrated such that purchasing another program is unnecessary. Should you not own this latest word-processing program, an alternative, free PDF creation program is available here: <http://www.pdf995.com/download.html>. Download the following two files to your desktop from the top "Pdf995 2-Step Download" box: 1) Pdf995 Printer Driver and 2) Free Converter. After downloading them, install them on your computer by double-left clicking on each of them, but be sure to install the converter first, and install the printer driver second.

This PDF conversion program is free because it advertises a sponsor page in your Web browser each time you run the software. By purchasing the software key for a nominal price, you can create PDF files advert-free. When viewing or sharing your PDF files with someone else, however, no adverts will be displayed. Note that this is a fully functional program that is integrated in your operating system. It is not a trial version, and it does not expire.

How do you use pdf995 to create a PDF file from Microsoft Word, WordPerfect, or any another program? First, create a file, and then select Print from the File menu. In the Print dialog box, use the drop down arrow to choose your Printer Name from the drop down menu. Select the PDF995 printer. Left click on OK. Finally, type a name for the PDF file you wish to create. The file can now be shared by e-mail and can be opened using Adobe Acrobat or other PDF readers. And the best news is that your precious Arabic language fonts and Arabic transliteration fonts remain undisturbed and undistorted!

Step 10: How to enable Arabic Web browsing

And what about the Internet? Netscape Navigator (NN) versions 7.x, Mozilla versions 1.3 and above, and Internet Explorer (IE) versions 5.5 and above all support viewing and composing Arabic on the Internet.

Directions on how to Arabicize Internet Explorer follow in **two** steps. **1** First check what version of IE you have. You can do this by opening IE and left clicking on the word Help on the top of the page within the toolbar. Left click on About Internet Explorer. If the version

number is above 5.5, then continue. If not, consider updating your web browser. Left click on Tools on the toolbar. Left click again on Internet Options.... Left click on the General tab on the top of the box that appears. At the bottom of the box, left click on the Languages... button. Left click on the Add... button within the Language Preference box that appears. Find all the varieties of Arabic listed, select them all by depressing the Ctrl key on your keyboard while left clicking on them simultaneously, and then click on the OK button. They should now appear within the Languages pane. Left click on the OK button within the Language Preference box. Finally, left click on the OK button within the Internet Options box and restart the computer.

2 If you ever come across an Arabic web page whose text you can not read, then it's probably the Encoding that is off. Open IE and left click on the View button on the very top toolbar. Drag your mouse over Encoding and left click again. Select Arabic (Windows) by left clicking. Wait for the web page to reset itself. If this still does not do the trick or if you do not see the Arabic (Windows) option, then left click on More. A large menu of options will appear, and the top three options will be different Arabic encodings. Select each one-by-one by left clicking on them until the text appears legible. Now try it by surfing to <http://www.aljazeera.net/>.

Netscape Navigator and Mozilla look and operate very similarly. Directions on how to Arabicize Netscape Navigator 7.x follow in two steps. **1** First check what version of Netscape you have. You can do this by opening Netscape and left clicking on the word Help on the top of the page within the toolbar. Left click on About Netscape. If the version number is above 7.0, then continue. If not, consider updating your web browser. Left click on Edit on the toolbar. Left click again on Preferences.... Double-left click on the word Navigator in the Category pane. Left click on the word Languages. Left click on the Add... button within the Languages for Web Pages box that appears. Find all the varieties of Arabic listed, select them all by depressing the Ctrl key on your keyboard while left clicking on them simultaneously, and then click on the OK button. They should now appear within the Languages for Web Pages pane. Left click on the OK button within the Languages for Web Pages pane. Finally, restart the computer.

2 If you ever come across an Arabic web page whose text you can not read, then it's probably the Encoding that is off. Open NN and left click on the View button on the very top toolbar. Drag your mouse over Charter Coding and left click again. Drag your mouse over More and left-click again. Drag your mouse over Middle Eastern and left click again. Select Arabic (Windows) by left clicking. Wait for the web page to reset itself. If this still does not do the trick or if you do not see the Arabic (Windows) option, then try one of the other available Arabic options. Select each one-by-one by left clicking on them until the text appears legible. Now try it by surfing to <http://www.aljazeera.net/>.

What next?

Now that complete writing, reading, and word-processing capabilities in Arabic are available on the home PC, and now that Arabic is easily accessibly on the Internet, a world of language training activities has opened to the field of teaching Arabic as a foreign language. We can finally expect our students to submit typed drafts of long compositions in Arabic, just as we would expect them to do in any language course. Our students can join Arabic chat rooms and virtually interact with Arabic-writers from all over the world. Finding electronic,

Arabic-writing, pen pals is no longer a challenge due to the technological efforts of <http://www.maktoob.com/>; Sending and receiving Arabic e-mails have never been easier. Even Arabic on-line proficiency tests are being developed and tested by a number of Arabic language institutions in conjunction with the Department of Education. The possibilities, as you can see, are tremendous. And it all starts with enabling Arabic in Windows.

ABOUT THE AUTHOR

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