

Google Hacking and Personal Data Privacy

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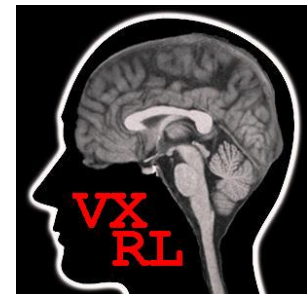
VX Research Lab (VXRL)

www.vxrl.org



VXRL

- Non-profit making group
- Focus on security research and ethical hacking
- Offensive, creative and fun



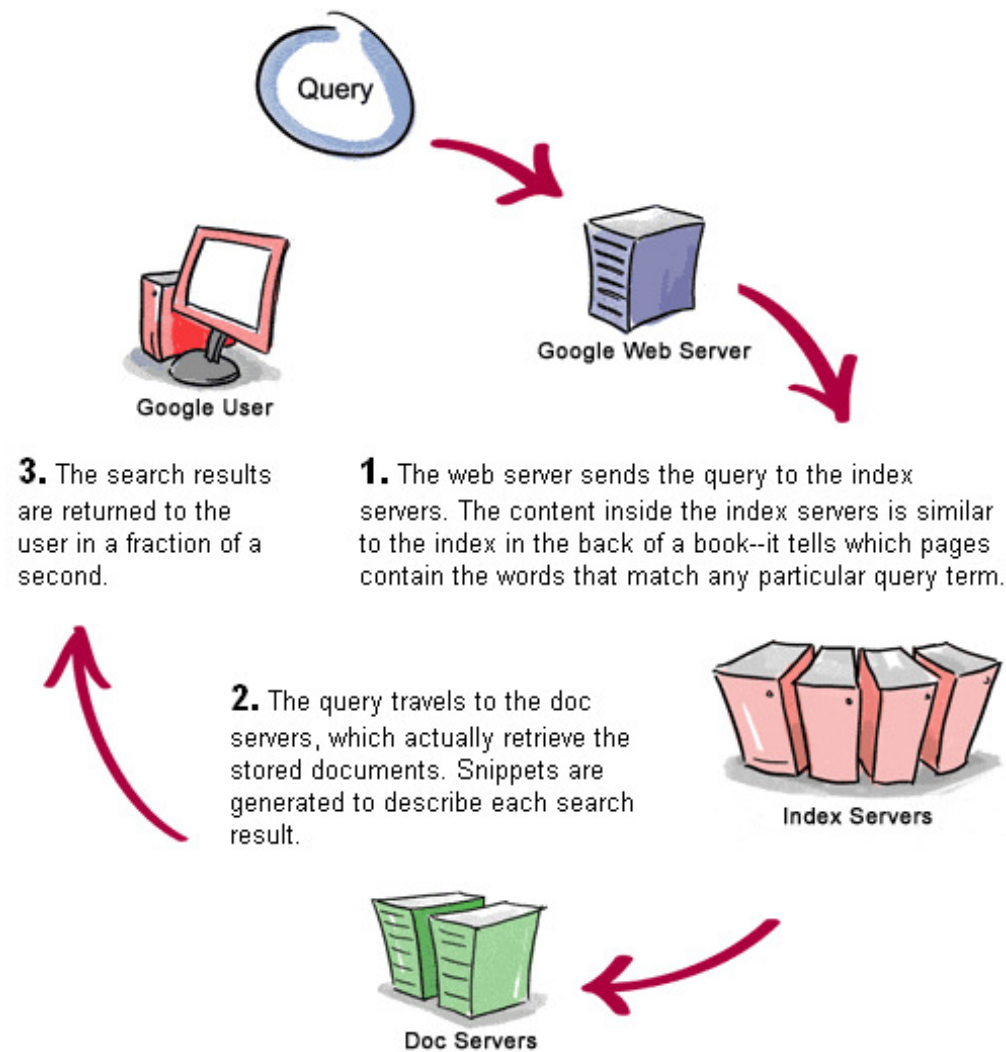
Google makes our life easy. Just a single click time to find any searched information.

However Google not only makes it possible to reach the public available information, but also threatens some of the most confidential Information (e.g. personal privacy) that should never be revealed.

Personal Privacies like name, address, phone numbers, emails, username and password for login sites, private directories and documents and online devices (e.g. web cameras) without any access control.

"Google Hacking" is the use of Google's to do naughty things. It makes use of the advanced Google syntaxes and operators extensively.

How Google Works



How Google Works

- **Googlebot**

A web spider that finds and go to get web pages.

- **The indexer**

Stores the fetched results in a Google's index database in alphabetic order.

- **The query processor**

Compares the search query to the index and recommends the most relevant documents.

The Basics

- The plus symbol (+) forces inclusion of something common.
- The minus symbol (-) forces exclusion of a search term.
- The pipe symbol (|) provides boolean OR logic that locate either one term or another in a query
- The symbol (“”) uses to quote around the search phrases

Advanced search operators

- [all]inurl
Searches for the certain keyword in the URL
- [all]intitle
Searches for the certain keyword in the title
- [all]intext
Searches the keywords in the body of web pages.
- Filetype / ext
Filter out the results based on the file extensions
- Site
Searches within the Domain

- Let's take a look at a few of the interesting Google search result.

Search for Name, Email Address, Phone,:

Search for Name, Email Address, Phone,:

約有 2,820,000 項結果 (需時 0.17 秒) 進階搜尋

[PDF] [Work Phone First Name Last Name Email Address County \(727\) 492 ...](#) ☆ 🔍 - [翻譯此頁]

檔案類型: PDF/Adobe Acrobat - 快速檢視

Work Phone. First Name. Last Name. Email Address. County. (727) 492- Kimberly ...
Donald *State-OH. (304) 748- Lynette ...
www. /images/ _weblist_12_23_09.pdf - 類似內容

[PDF] [Business Name ADDRESS PHONE NUMBER Website / Email CONTACT PERSON](#) ☆ 🔍

- [翻譯此頁]

檔案類型: PDF/Adobe Acrobat - 快速檢視

21 May 2010 ... Business Name. ADDRESS. PHONE. NUMBER. Website / Email. CONTACT
.... Donald Merrell. P.O. Box 7105. Branson, MO 65615. 417-336-8591 ...
www.greenecountymo.org/sheriff/file/ccw.pdf

[PDF] [Name: Donald Yap Address: 1301-1323 Homer St. Vancouver, British ...](#) ☆ 🔍 - [翻譯此頁]

檔案類型: PDF/Adobe Acrobat - 快速檢視

Name: Donald Yap. Address: 1301-1323 Homer St. Vancouver, British Columbia. V6B 5T1,
Canada. Contact Information: Phone: 1-778-994-1373 (Cell.) Email: ...
www.dsypublishing.com/info/cv/donald_yap_cv.pdf

[PDF] [AUTHORIZED AUTHORIZED DEALERS/INSTALLATION FIRMS DEALERS ...](#) ☆ 🔍 - [翻譯此頁]

檔案類型: PDF/Adobe Acrobat - 快速檢視

Dealer Name: Florida Business Interiors. Dealer Address: 940 Williston Park ... Cell phone /
pager: 706-302-1837. Email address: donald.hooper@milliken.com ...
www.milliken2.com/FLCntrct/FLCntrcP.nsf/0/.../Authorized%20Dealers.pdf

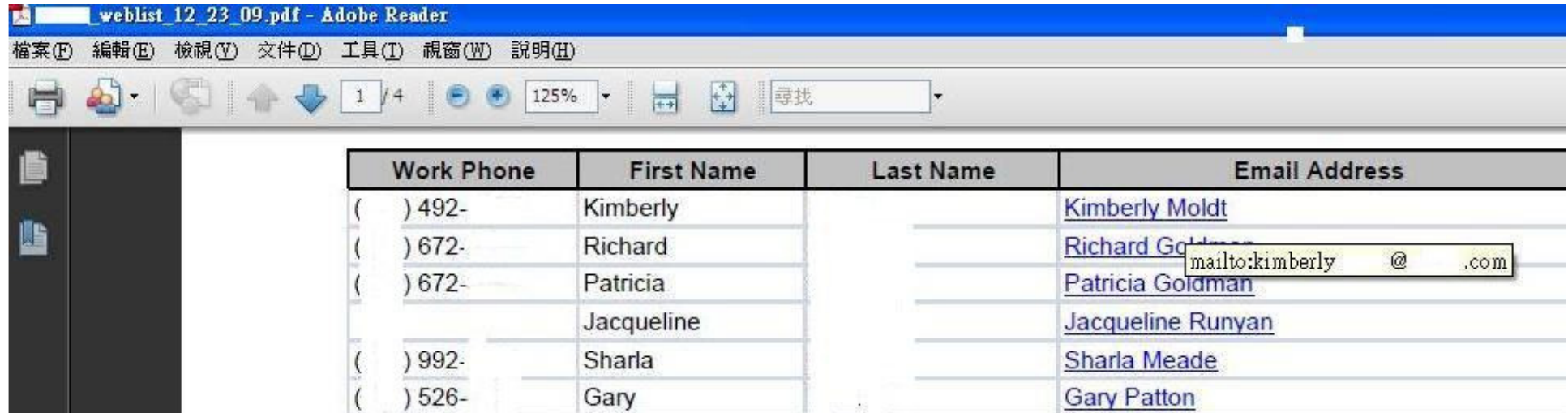
[PDF] [Church Confer- ence Name Phone Address email All Saints, Wakefield ...](#) ☆ 🔍 - [翻譯此頁]

檔案類型: PDF/Adobe Acrobat - 快速檢視

Donald & Irene Mildren. 906-932-2222. P.O. Box 203. Ironwood, MI 49938 Name. Phone.
Address email. Central, Menominee *. 5. Emmanuel, Menominee ...
fordunelakelutherancamp.org/PDF/Flamelist_01_19_09.pdf

↓ 下一筆 (N) ↑ 上一筆 (P) ⏏ 全部高亮度標示 (A) 符合大小寫 (C)

Search for Name, Email Address, Phone,:



The screenshot shows the Adobe Reader interface with a search bar containing the text '尋找'. The search results are displayed in a table with the following columns: Work Phone, First Name, Last Name, and Email Address. The search results are highlighted in yellow, and a tooltip shows the email address 'mailto:kimberly@.com'.

Work Phone	First Name	Last Name	Email Address
() 492-	Kimberly		Kimberly Moldt
() 672-	Richard		Richard Goldman
() 672-	Patricia		Patricia Goldman
	Jacqueline		Jacqueline Runyan
() 992-	Sharla		Sharla Meade
() 526-	Gary		Gary Patton

- Let's take a look at a few of the interesting Google search result.

Web 2.0,:

Web 2.0,:

"donald tsang" site:facebook.com

搜尋

約有 6,850 項結果 (需時 0.19 秒)

[Donald Tsang | Facebook](#) ☆ 🔍 - [翻譯此頁]

[Donald Tsang Yam Kuen](#) (bahasa Tionghoa: 曾蔭權, lahir 7 Oktober 1944) adalah ... China Chief Executive [Donald Tsang](#), Indonesia President Susilo Bambang ...
www.facebook.com/pages/Donald-Tsang/105687922797925 - 頁庫存檔

[Videos Posted by my little airport: my little airport - donald ...](#) ☆ 🔍

[donald tsang, please die](#) 我哋實上街 [donald tsang, please die ... donald tsang, please die](#) when will you die? [donald tsang, please die ...](#)
www.facebook.com/video/video.php?v=105351254045 - 頁庫存檔

[Donald Tsang | Facebook](#) ☆ 🔍 - [翻譯此頁]

Welcome to the Facebook Community Page about [Donald Tsang](#), a collection of shared knowledge concerning [Donald Tsang](#).
www.facebook.com/pages/Donald-Tsang/113212145359428 - 頁庫存檔

[Chris Vs Donald Tsang | Facebook](#) ☆ 🔍

Lord Patten had an advantage to do what [Donald Tsang](#) can not do right now: the freedom to go against his superiors (if he has to) and abide by his ...
www.facebook.com/topic.php?uid=26050876781&topic=6768 - 頁庫存檔

[Popularity figures of CE Donald Tsang, Secretaries of Departments ...](#) ☆ 🔍 - [翻譯此頁]

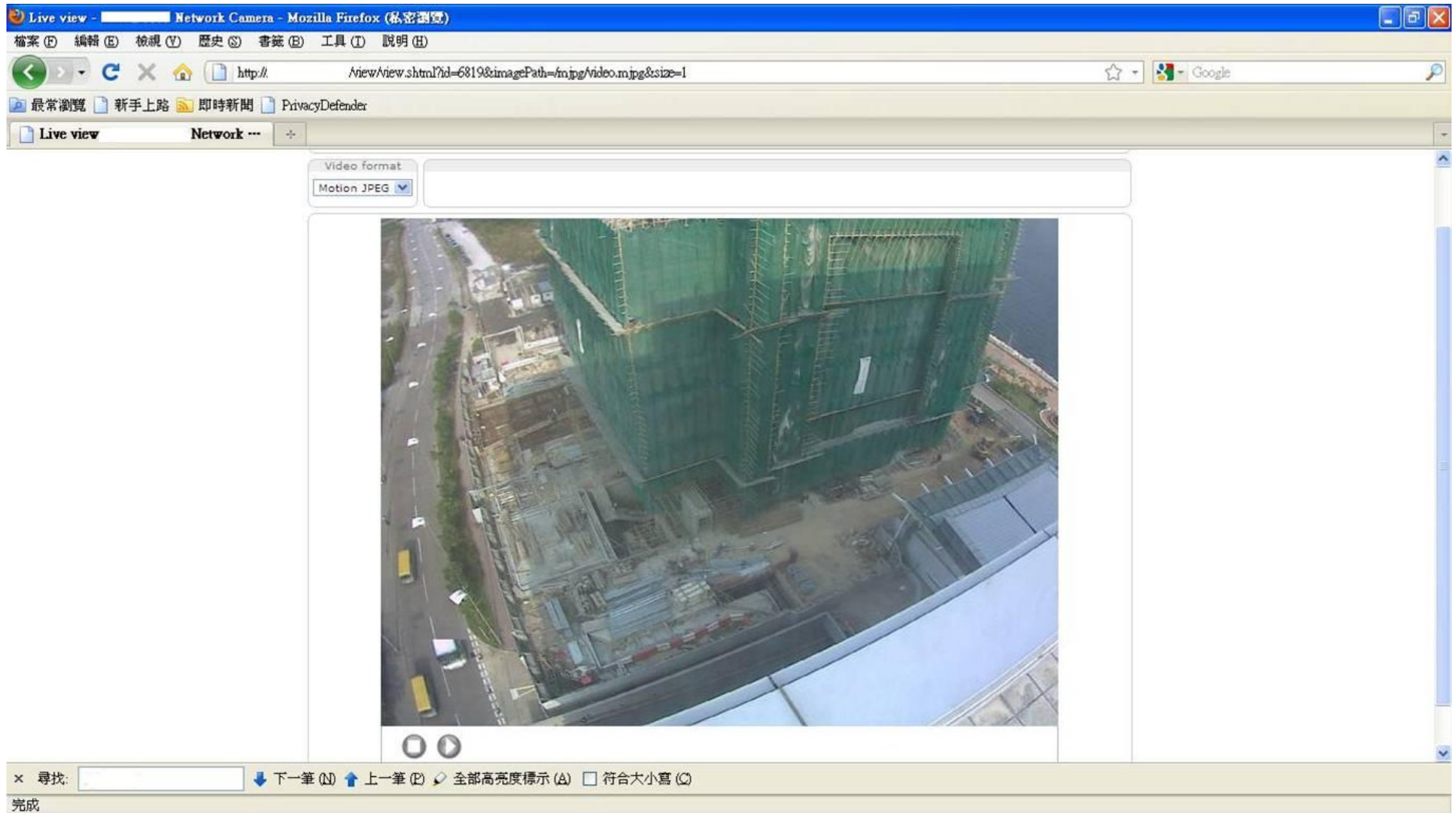
20 Apr 2010 ... Facebook is a social utility that connects people with friends and others who work, study and live around them. People use Facebook to keep ...
www.facebook.com/note.php?note_id=417907921139...ref... - 頁庫存檔

The screenshot shows a Facebook profile for Donald Tsang. The profile picture is a man in a suit and glasses. The name 'Donald Tsang' is displayed with a verified badge. The bio section contains text in both Chinese and English, including 'Donald Tsang Yam Kuen (bahasa Tionghoa: 曾蔭權, lahir 7 Oktober 1944) adalah ... China Chief Executive Donald Tsang, Indonesia President Susilo Bambang ...'. The page shows a cover photo, a profile picture, and a list of posts or updates. The interface is in English, with a search bar at the top and a navigation menu on the left.

- Let's take a look at a few of the interesting Google search result.

Webcam,:

Webcam,:



[XLS] [Sheet1](#) - [Translate this page]

File Format: Microsoft Excel - [View as HTML](#)

NAME, SEX, **Phone No.** 9, 1, YEUNG LAP SHING, 楊立成, M, 10, 2, CHAN KA HEI, 陳嘉
晞, F, 11, 3, FAN GA YING, 范嘉盈, F, 12, 4, SO YUEN YUEN, 蘇女丸女丸, F ...
www.cccmkc.edu.hk/doc/2008Bridging.../Class%201-Cheryl%20Cheng.xls

[XLS] [Section III](#)

File Format: Microsoft Excel - [View as HTML](#)

If you have any difficulty completing this form, please **phone** 2878 1623, 2878 8210, 9, 10,
2. Analysis by type of derivatives by counterparty ...
www.info.gov.hk/hkma/eng/guide/doc/word/c18_5_98ba.xls

[XLS] [departments.xls](#) - [Hong Kong](#)*

File Format: Microsoft Excel - [View as HTML](#)

Student Name, Student No. **Phone No.** 8, 1,

[ftp:// ... /AC/... /departments.xls](ftp://.../AC/.../departments.xls)

[XLS] [CRP Form P.1 - Hong Kong Police Force | 香港警務處](#)

File Format: Microsoft Excel - [View as HTML](#)

9, Name of Registered Owner/Company, HK Identity Card No. () ... 18, **Telephone No.**
Home, Office, Mobile **Phone**, Fax No. 19, I hereby apply for a Closed Road ...
www.police.gov.hk/ppp_en/08_forms/doc/ClosedRoadPermit.xls?...



[Previous](#)

1 2 3 **4** 5 6 7 8 9 10 11 12 13

[Next](#)

Microsoft Excel - departments.xls

File Edit View Insert Format Tools Data Window Help


Save

F41


	A	B	C	D
16	SI Students			
17				
18	No.	Student Name	Student No.	Phone No.
19	1	Lam	37	92
20	2	Kwan	81	93
21	3	Lam	71	64
22	4	Wong	26	61



Page 12 of about 243 results (0.09 seconds)

 Everything

 Images

 Videos

 More

Show search tools

▶ [\[xLS\] Sheet1](#) - [Translate this page]

File Format: Microsoft Excel - View as HTML

We will contact you via **phone** or email to confirm your order details, payment, 108, 9, FRONTIER-All Purpose Seasoning 無鹽多用途調味料, 40g, \$38, \$34 ...
www.healthbrand.com.hk/doc/Web%20order%20form.xls

[\[xLS\] Sheet1](#)

File Format: Microsoft Excel - View as HTML

9, Leung 1, @hotmail.com. 10, KS
40, Name, Type of Client, friend, Phone No. email: ...
[www. com.hk/ /.../seminar .xls](#)

Microsoft Excel - [workbook].xls

File Edit View Insert Format Tools Data Window Help

新細明體 12 B I U

Priscilla

	A	B	C	D	E	F	G	H	I	J	K
1	Name	friend		Phone No.				email:			
2	鄭	1		251							
3	Chan	1		942							
4	Chan	1		978							
5	Pang	1		938							
6	Wong	1		946							
7	Woo	2		938						@yahoo.com.hk	
8	Lam	1		983						@yahoo.com.hk	

[XLS] [08.xls - - Offline](#)

File Format: Microsoft Excel - View as HTML

Mobile **Phone**, Home **Phone**, Office Fax, E-mail ... 9,

@ ... edu.hk ...

edu.hk/

/.../

08.xls

[XLS] [R Form P.1 - Hong Kong Police Force | 香港警務處](#)

File Format: Microsoft Excel - View as HTML

18, **Telephone** No. Home, Office, Mobile **Phone**, Fax No. 9, I, Residents under the age of 18 do not require to apply for the Closed Area Permit. ...

www.police.gov.hk/ppp_en/08.../ClosedAreaPermitAppResident.xls?..E

[XLS] [Request Form for Depositing Personal Copies of Books - * City ...](#)

File Format: Microsoft Excel - View as HTML

7, Position: **Phone**: 8, Department: Email Address: 9, Course name: Course Code: 10,

Completed form, together with the copies of books / media resources ...

www.cityu.edu.hk/lib/form/personal_copy_reserve.xls

[XLS] [Consigned Wines - 美酒窖 Hong Kong Wine Vault](#)

File Format: Microsoft Excel - View as HTML

Phone Number: 7, 8, Consignor: Contact Address: 9, 10, HKID No.: 11, 12, Consignment

Period (mths): Email: 13, 14, The Consignor consigns the attached ...

www.winevault.com.hk/pdf/HKWVConsignmentAgreement.xls

Microsoft Excel - [] 08.xls

File Edit View Insert Format Tools Data Window Help

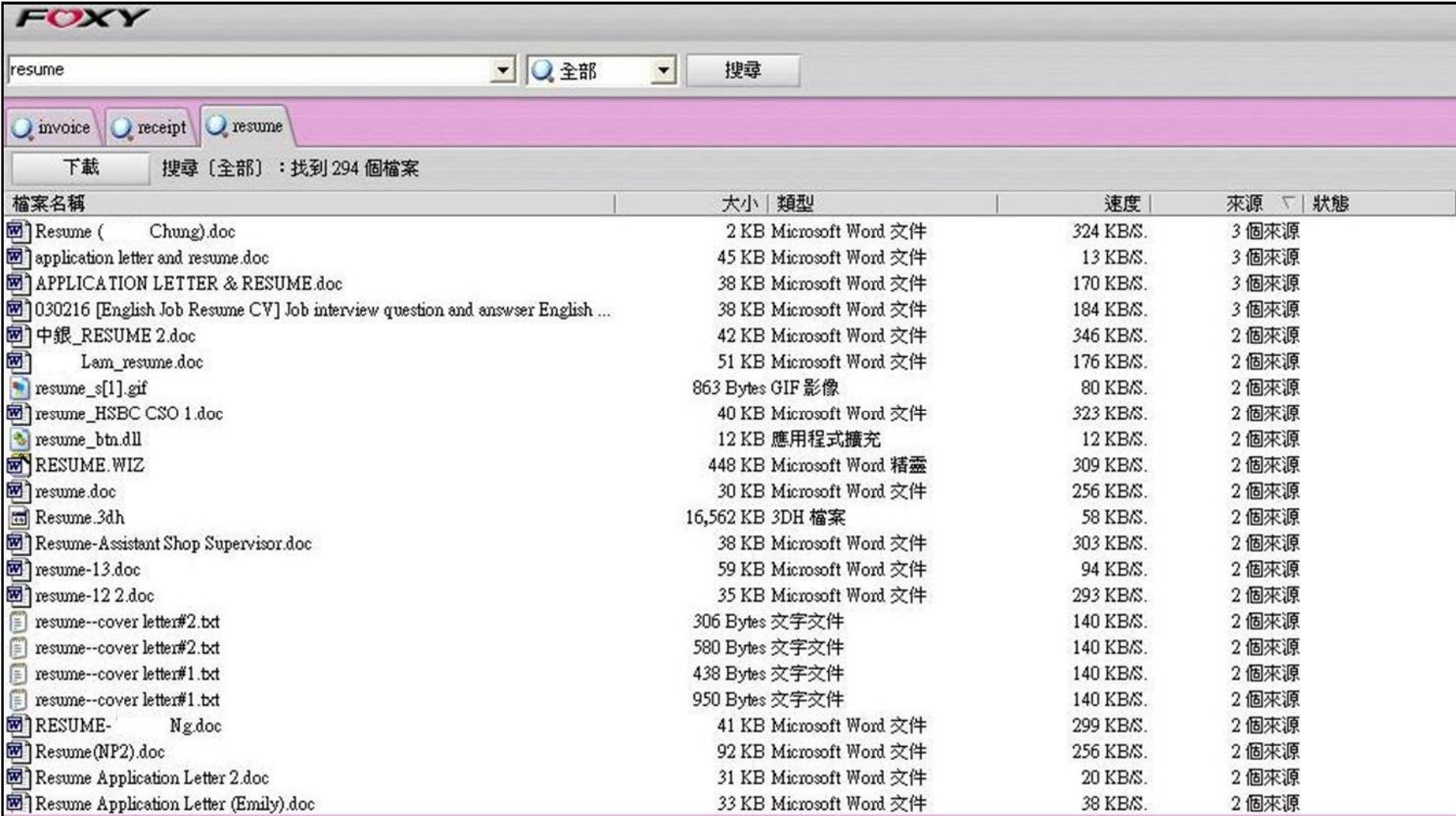
100% Arial 10

A33 PH/mk

	A	B	C	D	E	F
2						
3	Name	Office No.	Mobile Phone	Home Phone	Office Fax	E-mail
4						
5	Richard	31	60	28	28	@ hk
6	Linda	31	90	26	28	@ hk
7	Ken	28	91	28	28	@ hk

Foxy

Foxy is a Chinese P2P software.



The screenshot shows the Foxy P2P software interface. At the top, there is a search bar with the text 'resume' and a search button labeled '搜尋'. Below the search bar, there are tabs for 'invoice', 'receipt', and 'resume', with 'resume' being the active tab. A status bar indicates '搜尋 [全部] : 找到 294 個檔案'. The main area displays a list of search results in a table format.

檔案名稱	大小	類型	速度	來源	狀態
Resume (Chung).doc	2 KB	Microsoft Word 文件	324 KB/S	3 個來源	
application letter and resume.doc	45 KB	Microsoft Word 文件	13 KB/S	3 個來源	
APPLICATION LETTER & RESUME.doc	38 KB	Microsoft Word 文件	170 KB/S	3 個來源	
030216 [English Job Resume CV] Job interview question and answer English ...	38 KB	Microsoft Word 文件	184 KB/S	3 個來源	
中銀_RESUME 2.doc	42 KB	Microsoft Word 文件	346 KB/S	2 個來源	
Lam_resume.doc	51 KB	Microsoft Word 文件	176 KB/S	2 個來源	
resume_s[1].gif	863 Bytes	GIF 影像	80 KB/S	2 個來源	
resume_HSEC CSO 1.doc	40 KB	Microsoft Word 文件	323 KB/S	2 個來源	
resume_btn.dll	12 KB	應用程式擴充	12 KB/S	2 個來源	
RESUME.WIZ	448 KB	Microsoft Word 精靈	309 KB/S	2 個來源	
resume.doc	30 KB	Microsoft Word 文件	256 KB/S	2 個來源	
Resume.3dh	16,562 KB	3DH 檔案	58 KB/S	2 個來源	
Resume-Assistant Shop Supervisor.doc	38 KB	Microsoft Word 文件	303 KB/S	2 個來源	
resume-13.doc	59 KB	Microsoft Word 文件	94 KB/S	2 個來源	
resume-12 2.doc	35 KB	Microsoft Word 文件	293 KB/S	2 個來源	
resume--cover letter#2.txt	306 Bytes	文字文件	140 KB/S	2 個來源	
resume--cover letter#2.txt	580 Bytes	文字文件	140 KB/S	2 個來源	
resume--cover letter#1.txt	438 Bytes	文字文件	140 KB/S	2 個來源	
resume--cover letter#1.txt	950 Bytes	文字文件	140 KB/S	2 個來源	
RESUME- Ng.doc	41 KB	Microsoft Word 文件	299 KB/S	2 個來源	
Resume(NP2).doc	92 KB	Microsoft Word 文件	256 KB/S	2 個來源	
Resume Application Letter 2.doc	31 KB	Microsoft Word 文件	20 KB/S	2 個來源	
Resume Application Letter (Emily).doc	33 KB	Microsoft Word 文件	38 KB/S	2 個來源	

Foxy

The screenshot displays the Foxy search engine interface. At the top, there is a search bar containing the text 'resume', a dropdown menu set to '全部', and a '搜尋' button. Below the search bar, there are tabs for 'invoice', 'receipt', and 'resume', with 'resume' being the active tab. A '下載' button and a status message '搜尋 [全部] : 找到 60 個檔案' are visible. The main area contains a table of search results with columns for '檔案名稱', '大小', '類型', '速度', '來源', and '狀態'.

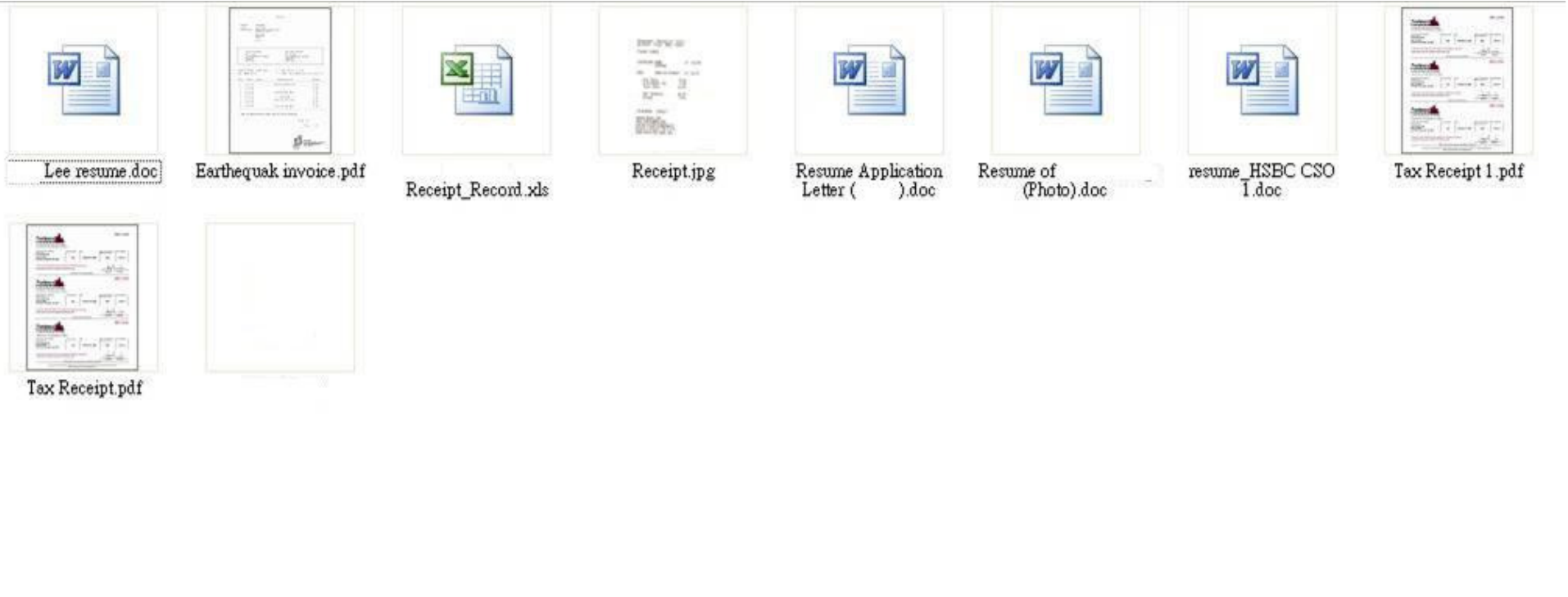
檔案名稱	大小	類型	速度	來源	狀態
Tax Receipt ReadMe.pdf	29 KB	Adobe Acrobat Document	60 KB/S.	2 個來源	
Tax Receipt ReadMe.pdf	102 KB	Adobe Acrobat Document	87 KB/S.	2 個來源	
Tax Receipt ReadMe.pdf	40 KB	Adobe Acrobat Document	87 KB/S.	2 個來源	
Receipt_CC_Declined.res	3 KB	RES 檔案	41 KB/S.	2 個來源	
Tax Receipt.xml	749 Bytes	XML Document	114 KB/S.	1 個來源	
Tax Receipt.xml	866 Bytes	XML Document	14 KB/S.	1 個來源	
Tax Receipt.xdp	79 KB	Adobe Acrobat XML Data Pa...	114 KB/S.	1 個來源	
Tax Receipt.xdp	80 KB	Adobe Acrobat XML Data Pa...	114 KB/S.	1 個來源	
Tax Receipt.pdf	89 KB	Adobe Acrobat Document	114 KB/S.	1 個來源	
Tax Receipt.pdf	77 KB	Adobe Acrobat Document	114 KB/S.	1 個來源	
Receipt.jpg	74 KB	JPEG 影像	418 KB/S.	1 個來源	
O-Week Receipt_Record.xls	96 KB	Microsoft Excel 工作表	32 KB/S.	1 個來源	
O-Night Receipt_Record.xls	96 KB	Microsoft Excel 工作表	32 KB/S.	1 個來源	
I'll need a receipt for my boss..wav	67 KB	Wave 音訊	3 KB/S.	1 個來源	
CHAN receipt.pdf	73 KB	Adobe Acrobat Document	4 KB/S.	1 個來源	
29588943_ receipt.pdf	116 KB	Adobe Acrobat Document	55 KB/S.	1 個來源	
0988078644_ receipt.pdf	115 KB	Adobe Acrobat Document	10 KB/S.	1 個來源	
0938093094_ receipt.pdf.lnk	878 Bytes	捷徑	43 KB/S.	1 個來源	
0938093094_ receipt.pdf	118 KB	Adobe Acrobat Document	43 KB/S.	1 個來源	
0932011990_ receipt.pdf.lnk	878 Bytes	捷徑	43 KB/S.	1 個來源	
0932011990_ receipt.pdf	118 KB	Adobe Acrobat Document	43 KB/S.	1 個來源	
0931831977_ receipt.pdf	116 KB	Adobe Acrobat Document	4 KB/S.	1 個來源	

Foxy

The screenshot displays the Foxy browser interface. At the top, the search bar contains the text 'resume'. Below the search bar, there are tabs for 'invoice', 'receipt', and 'resume'. A search button labeled '搜尋' is visible. The main content area shows a list of search results for 'resume', with a sub-header '搜尋 [全部] : 找到 42 個檔案'. The results are presented in a table with columns for '檔案名稱', '大小', '類型', '速度', '來源', and '狀態'.

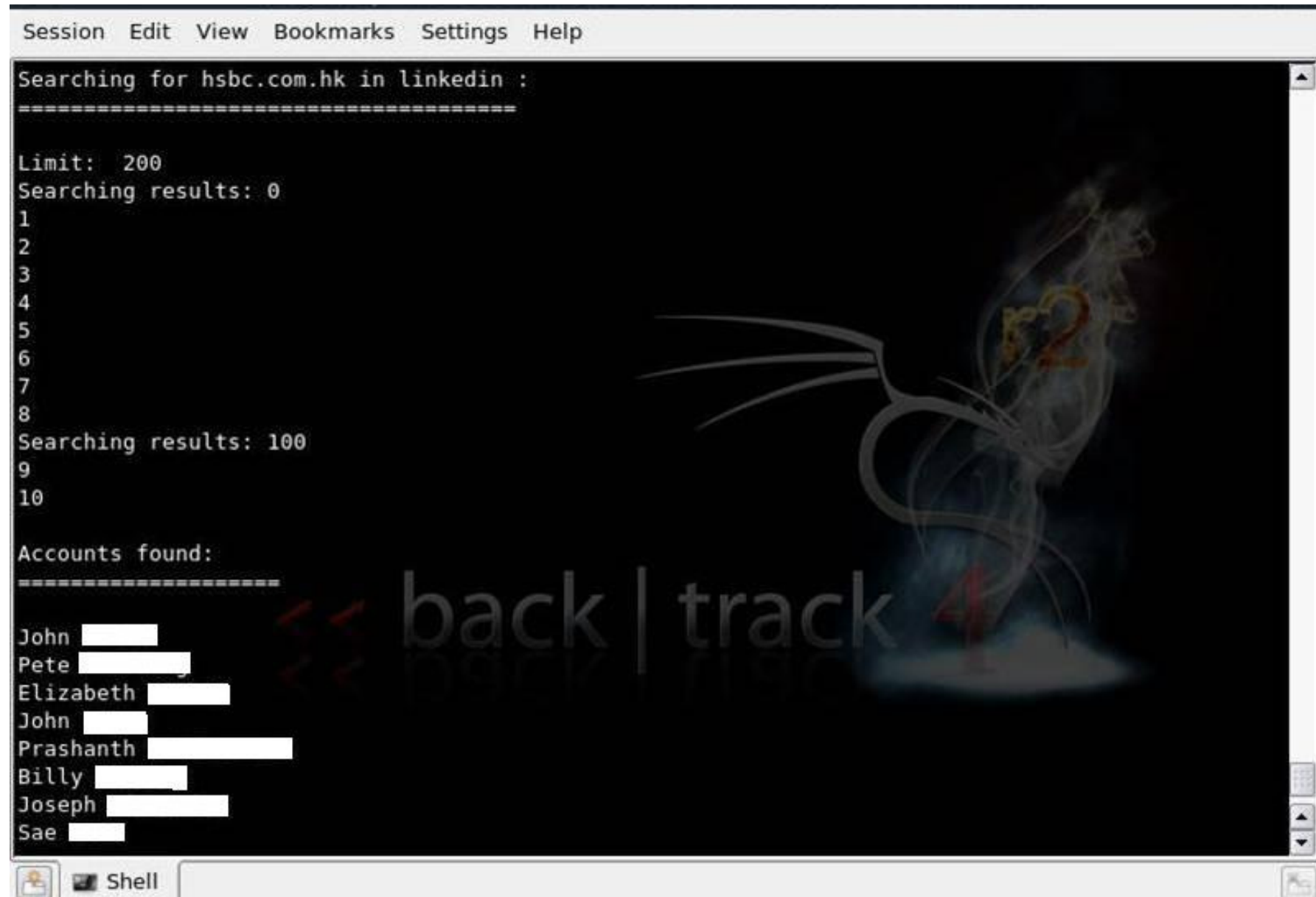
檔案名稱	大小	類型	速度	來源	狀態
INVOICE SHEET.ai	224 KB	AI 檔案	232 KB/S	1 個來源	
INVOICE SHEET.ai	243 KB	AI 檔案	232 KB/S	1 個來源	
Earthquak invoice.pdf	262 KB	Adobe Acrobat Document	232 KB/S	1 個來源	
INVOICE - NHS.pdf	240 KB	Adobe Acrobat Document	232 KB/S	1 個來源	
INVOICE - REBEL MONK FILMS.pdf	190 KB	Adobe Acrobat Document	232 KB/S	1 個來源	
INVOICE - SUBTV.pdf	264 KB	Adobe Acrobat Document	232 KB/S	1 個來源	
INVOICE SHEET.pdf	432 KB	Adobe Acrobat Document	232 KB/S	1 個來源	
invoice.fp	7 KB	FP 檔案	57 KB/S	2 個來源	
ad12060_invoice[1].gif	1 KB	GIF 影像	164 KB/S	1 個來源	
Invoice[1].htm	9 KB	HTML 文件	16 KB/S	1 個來源	
Invoice.indt	528 KB	INDT 檔案	164 KB/S	1 個來源	
INVOICE.xls	16 KB	Microsoft Excel 工作表	105 KB/S	1 個來源	
INVOICE.XLT	297 KB	Microsoft Excel 範本	494 KB/S	1 個來源	
\$INVOICE.DOC	5 KB	Microsoft Word 文件	58 KB/S	1 個來源	
Invoice_002-1[1].swf	21 KB	Shockwave Flash Object	68 KB/S	1 個來源	
Invoice.tds	215 KB	TDS 檔案	64 KB/S	1 個來源	
Invoice.tds	215 KB	TDS 檔案	164 KB/S	1 個來源	
Invoice.tds	175 KB	TDS 檔案	164 KB/S	1 個來源	
Invoice.tds	178 KB	TDS 檔案	164 KB/S	1 個來源	
Invoice.tds	231 KB	TDS 檔案	164 KB/S	1 個來源	
Invoice.tds	202 KB	TDS 檔案	164 KB/S	1 個來源	
Invoice.tds	162 KB	TDS 檔案	164 KB/S	1 個來源	
Invoice.tds	215 KB	TDS 檔案	64 KB/S	1 個來源	

Foxy

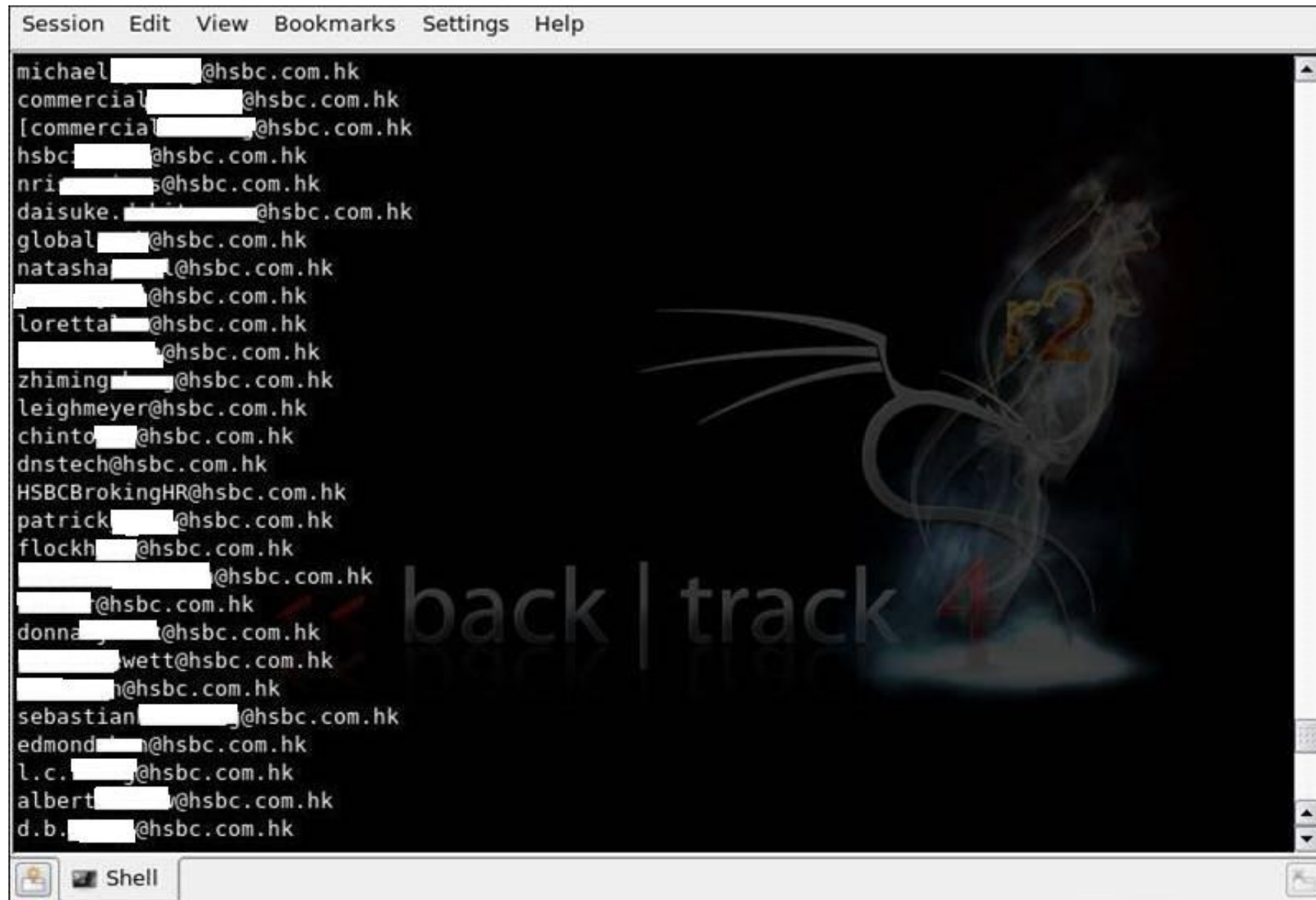


LinkedIn Account

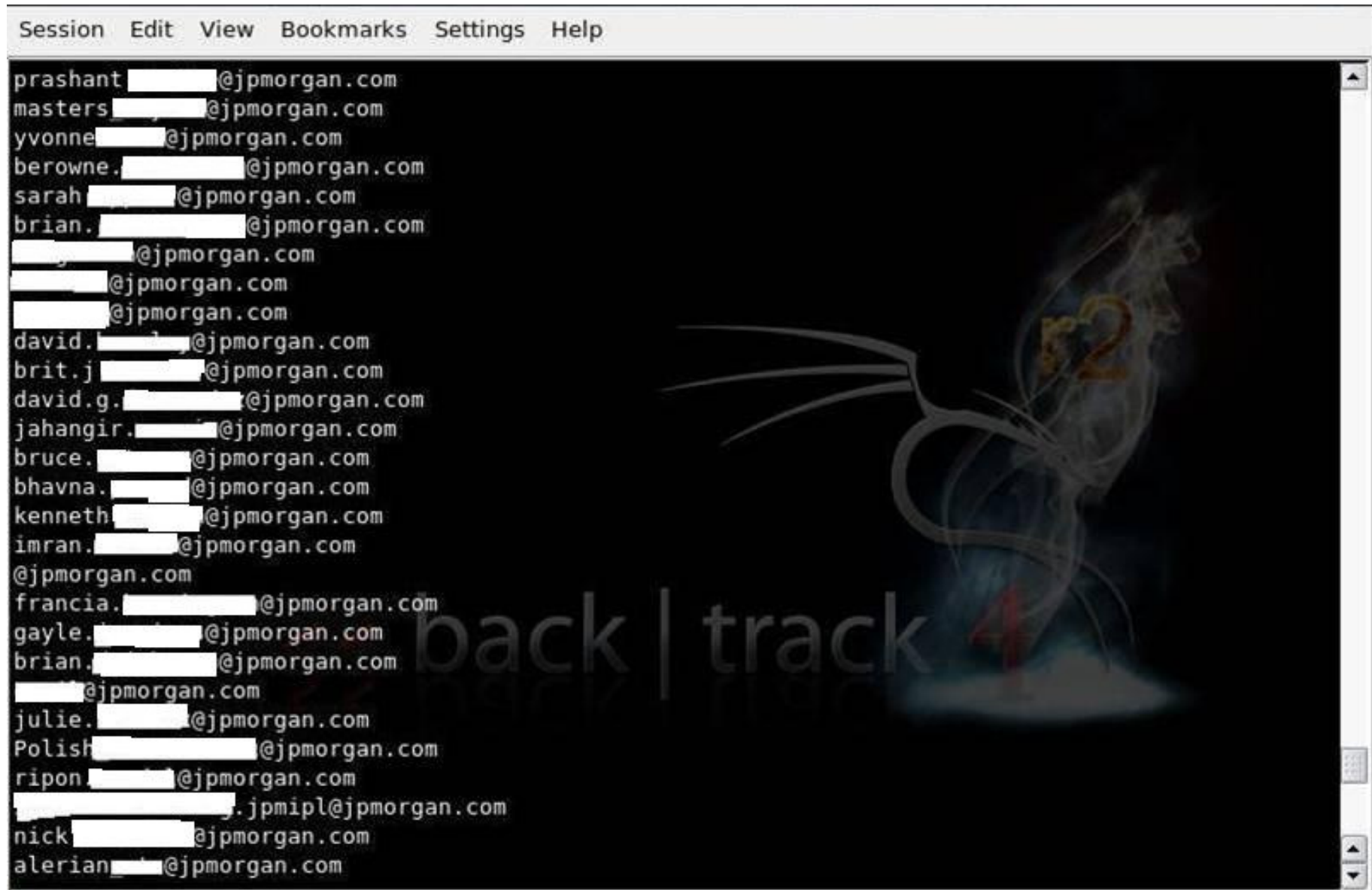
```
Session Edit View Bookmarks Settings Help
Searching for hsbc.com.hk in linkedin :
=====
Limit: 200
Searching results: 0
1
2
3
4
5
6
7
8
Searching results: 100
9
10
Accounts found:
=====
John [redacted]
Pete [redacted]
Elizabeth [redacted]
John [redacted]
Prashanth [redacted]
Billy [redacted]
Joseph [redacted]
Sae [redacted]
```



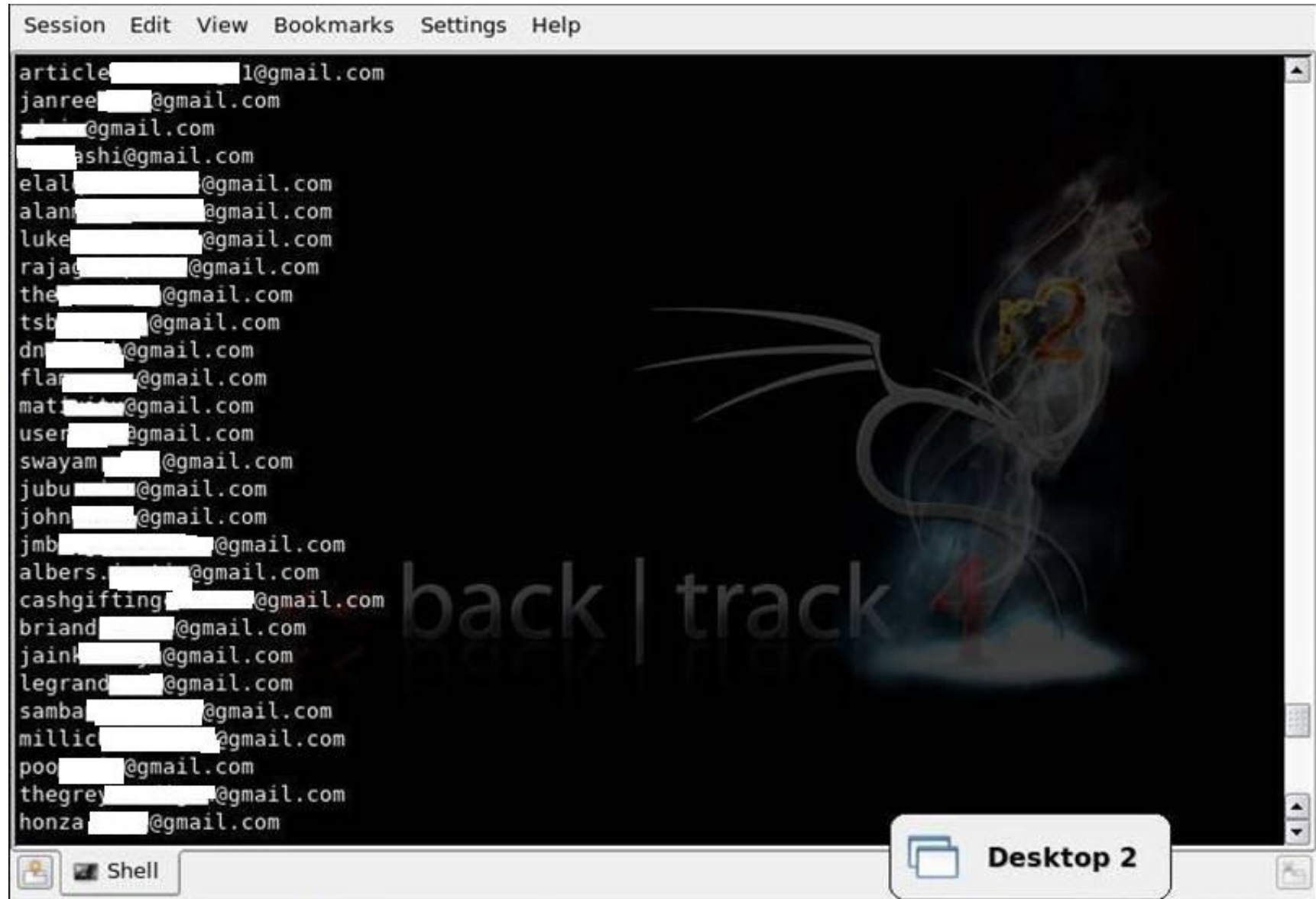
Email Account



Email Account



Email Account



Facebook

Show other Pages

Contact Information

Phone 60***** (Mobile)

Website <http://xanga.com/> girl

Email mouse_@hotmail.com

Facebook facebook.com, ei

There are many more.

Combining the advanced operators is the key to
Google Hacking.

[http://www.googleguide.com/advanced_operators
_reference.html](http://www.googleguide.com/advanced_operators_reference.html)

Countermeasures

- Keep sensitive data off the web!!
- <http://www.google.com/remove.html>

Thank You