Making Money from FP

Joe Armstrong
Why do we want to make money from FP?
Somebody has to make money from FP otherwise there will be no jobs in FP and it will become a “hobby only” thing
Get Rich
The Commercial Advantages of FP
Elevator pitches

- You can write programs quicker  
- There will be less errors  
- Programs are shorter  

First to market  
Reduced costs for maintenance  
Reduced costs for maintenance
Plan

- Tell some success stories
- Starting a company
- The different types of company
- Innovating within a larger company
- Consulting
- Research
Success Stories
There is money to be made

Source: http://techland.time.com/2014/02/19/facebook-buying-whatsapp
Why was WhatsApp worth $19B?

This is what TIME thought:

• Facebook wants the photos
• Facebook is becoming a social media conglomerate
• Facebook lives in fear of being disrupted in mobile
• Facebook needs to expand its Europe and emerging markets presence.
• Facebook must buy its way into “ephemeral” and/or “dark social” communications

Source: http://time.com/8806/facebook-whatsapp-acquisition-explained/

But there was a another reason ...
Sequoia Capital, the sole investor in $16 billion WhatsApp, just published a blog post about why Facebook acquired its portfolio company.

Here it is:

Earlier today, Facebook announced its acquisition of WhatsApp for $16 billion. It’s a spectacular milestone for the mobile messaging app, now valued at the same amount as Twitter. The move will also help Facebook compete with the likes of Snapchat, WeChat, Viber and WhatsApp itself.
Even by the standards of the world's best technology companies, WhatsApp runs lean. With only 32 engineers, one WhatsApp developer supports 14 million active users, a ratio unheard of in the industry. (WhatsApps support team is even smaller.) This L E G E N D A R Y crew has built a reliable, low-latency service that processes 50 billion messages every day across seven platforms using Erlang, an unusual but particularly well-suited choice. All that, while maintaining greater than 99.9% uptime, so users can rely on WhatsApp the way they depend on a dial-tone.

The secret

- FP - is a secret weapon delivering fast time to market
- Many companies are known to be using FP in “stealth mode”
- Companies where FP delivers a significant commercial advantage are often publicity-shy. They tell people they use Java
- Once it works they will rewrite it in dreadfultran3. There are a lot of cheap dreadfultran3 programmers out there
The road to WhatsApp
The XMPP story

- 1998 - Michaël Rémond discovers Erlang
- 2002 - Alexey Shchepin starts XMPP server
- 2006 - Alexey Shchepin Erlang User of the year
- 2007 - Adam D'Angelo makes a chat prototype at Facebook hackathon
- 2008 - Facebook chat launched (10M users)
- 2009 - Jan Koum starts playing with ejabberd
- 2010? - Facebook rewrites server in C++ (???)

[ejabberd] client access control

Jan Koum jan.koum at gmail.com
Mon Jun 8 10:35:49 MSD 2009

- Previous message: [ejabberd] IQ Handler in external component
- Next message: [ejabberd] Degradation over time.
- Messages sorted by: [date] [thread] [subject] [author]

hi there,

i installed ejabberd today, got it work with adium/ichat and wanted to ask you all a couple of things:

1. i am working on adding jabber support into my iphone app and i want to configure the server in such a way that only my app can register new users and login into the server. is there anything i can do on the server end to configure this? ssl client authentication or something other client authentication i can build into the xmpp client?

2. since this is an iphone app, the network can drop at any moment. is there a way for a server to quickly discover that client has disconnected so it can begin to store messages for offline delivery?

thanks.

-- yan
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An HTML attachment was scrubbed...
URL: <http://lists.jabber.ru/pipermail/ejabberd/attachments/20090607/6e0177f7/atta>
De tre grundarna Victor Jacobsson, Sebastian Siemiatkowski och Niklas Adalberthillsammans med ny ordföranden Sven Hagström. Foto: SlVAD MRKONJIC

Gogles investerare går in i svenska Klarna

Av: Marie Alpman
Publicerad 5 maj 2010 14:03

Han har investerat i Google, Yahoo, Paypal, Apple och Cisco. Nu tar riskkapitalisten Michael Moritz plats i det svenska e-handelsbolaget Klarnas styrelse. Han föll bland annat för Klarnas hemliga vapen: programspråket Erlang.

Michael Moritz var en av de första att investera i Google och han satt tidigare i Googles styrelse. Han arbetar för det Silicon Valley-baserade riskkapitalbolaget Sequoia Capital, som nu även går in med 70 miljoner kronor i Klarna, som för fem år sedan fick Kreditor och var ett więc uppsandebolag i Handelsöppnings samarbete med "Kreditor" SSE Business Lab.

- Det är verklig jättekul. Det är första gången som Michael Moritz sätter sig i en styrelse i ett europeiskt bolag. Nu hoppas vi att han sak hjälpa oss att bli en riktig utmanare i betalningsvärlden,
Working inside a larger company
Sell X inside a bigger company

X = Erlang, Haskell *the usual suspects* ...

Of course *you can't sell X you must sell a product* written in *X*

- They must *need* the product *really quickly*
- Your advantage is *time to market* (nothing else)
- They can do this in other languages (TM)
- Expect problems
Common Problems

- Nobody got sacked for using Microsoft/Java/C++
- Smart guys with new smart ideas represent a threat to the established order
- Nobody loves innovators
- Wars with other groups doing the “same” thing
Solutions

- Get a protector (umbrella)
- Make yourself into a group, the group is the smallest unit of survival inside a big company
- Look for project failures
- Don't challenge on-going projects just because *you can do it better* If they can do it, they *will* do it
- Don't fight bad bosses - move immediately
- If your project is cancelled rename it
Start a company
Make your mind up

• Are you a product company - you make a product that you sell
• Are you a consultancy - you sell consulting hours and courses
• Are you a development/R&D company - you develop a product and sell the company or product to a bigger company that cannot develop the product itself

All these have different risk profiles
The Method

• Choose a (new) upcoming standard (or invent something new)
• Make the worlds *best* and *first* implementation of the standard
• **Gain a reputation as the experts** -- participate in standardization
• Sell or give away the software -- *The goal is to build a reputation*
• Sell the company
Examples

- WhatsApp (19$B)
- Bluetail (154$M)
- Tail-F (175$M)
- Rabbit MQ (?? $M)
Where does the money come from?

- Business angels
- Round (K) venture capitalists
- Personal loans (bad idea)
- Loan your house - sell your cat - sell you soul to the devil (very bad idea) **No external money = no external help**
Important

- Get external investors
- Don't sell all your stock
- Get the *business side* fixed
- Involve *excellent* legal etc. people. Pay them with stock.
Important note

• You are NOT selling Haskell/Erlang/TypeTrap23
• You are selling a THING written in Haskell/Erlang ...
• Your advantage is *time to market*
• You **must** have a business plan
• Concentrate on areas where big companies would *love* to be active and where there is intense competition to be first and where the profit margins are high
What is a business plan?

- What are we selling?
- How much does it cost?
- How are we going to sell it to?
- How can we reach/convince/sell to our customers?
- How can I (I = the investor) make money from this?
- How can my exit strategy (my = the investor) (exit strategy = take the money and run)
And ...

- Know your numbers - burn rates, profit margins ...
- Prepare the K-minute elevator pitch $K = 1, 2, 5$
- Get an amazingly good salesperson - pay them a medium amount with a huge bonus for sales
- Collect letters-of-interest, patents, newspaper articles, twitter followers, etc. Hire permanent staff. Get premises. Get customers. All the numbers from these will end up in VC's spreadsheets which effect the value of your company
The consultancy business
Why consultancies

- Lack of experienced programmers is seriously effecting the spread of FP
- Interest in FP is growing rapidly
- Income = #consultants x #profit per consultant + course fees
- Can be a private consultant (high income, no pension, get customers yourself)
- Freelance (work for an agency)
- Employee of specialist company (Erlang Solutions, Typesafe)
- Remote working is OK - but requires a good reputation (be an active blogger/author/speaker)
What you can all be doing now ...

- Write books for the average programmer **No greek letters** (if they can understand node.js code with callbacks inside the callbacks that are triggered when the callback is called - then monads will be easy)
- Change the image of FP - **go from scary to hip**
- Blog
- Tweet
- Network
Research
Have Fun
Your turn