How to plant and grow Technologists at your station

A Manager's Guide to Technoculture

or

"Four Drivers Changed my Life"

On Friday 14 November 2008, this presentation was delivered to the CBAA Annual Conference in Alice Springs by John Maizels. *john@maizels.nu*

At the time, John Maizels was Director of Engineering at 2NSB (Chatswood, Sydney), an elected member of the Board, and responsible for the full Technology portfolio for the station.

2NSB is a submetro, covering around 350k people on the North Shore of Sydney.   Maizels joined 2NSB at a time when it had two studios in various degrees of operability, and a total of two computers connected by a 10mbps Ethernet hub. Business is now significantly more complex, and includes:

• two fully operational studios, an on-air capable edit suite and an OB Van

• Gig-E network with 20 computers, and full broadcast automation system

• large scale UPS and monitoring

• digital Studio-Transmitter Link

• fully redundant transmission chain

• aacPlus streaming

The Engineering team at 2NSB ranges between six and twelve members.   This is the story of how you too can get people on board with your Technology team.

Revision note: 090201: Revised section on "Drivers" and "Recognition". "Truth" added as additional driver.

What will we cover?

- What is a Technologist?
- Why are Technologists needed?
- Why are they needed by your station?
- Managing the technologist relationship
- What is the CBAA's Technical Standing Committee (TSC) doing to help
- What can you do to help the sector?

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You have to start a presentation asking some questions, and saying what you intend to cover. The session (and this paper) was targeted at Managers and Board members, so, I ran a series of straw polls, to confirm if we had the right audience:

- show of hands who is management and who is technology (somewhat more managers, which met the criterion for the session)
- show of hands whose tech support is paid contract (a few)
- show of hands who has two techs (a few)
- show of hands who has one tech (many)
- show of hands who has no techs (too many)
- show of hands who has more than two technologists (nobody)

So 2NSB seems to be totally out of line by having a large and active engineering team.   It hasn't always been like that, and there have been times where a short-term management decision has led to the engineering team feeling attacked.   What happens? The team scatters, for reasons that I hope will be totally obvious as you go through this document.   Total tech support under those conditions: zero. Why? Because several key rules were forgotten, for whatever reason.

Team-building, any team, is a two way street and, as a manager and leader, you have huge influence over the sorts of teams that will flourish at your station.

I also took the time to introduce the audience to my fellow members of the CBAA's Technical Standing Committee (more detail on TSC: check the CBAA website www.cbaa.org.au).

Who is John Maizels, and why is he standing here??

Foremost a big-T Technologist

- Day job: Senior Engineer for a Subscription TV provider
- Currently Director of Engineering for 2NSB

- Started as a kid, around age 12. So did many of his mates.
  - First steps: designing/building consoles and studios
- First full time radio job: city station junior tech (3XY)
- Second full time radio job: country station announcer (3CS)
- Dabbles in TV outside immediate employment (on-camera, director, engineer)
- Actively driving several Broadcast Industry initiatives
  - SMPTE
  - MITC
- Passionate about Community Broadcasting

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I also felt that the audience deserved some background to justify the 90 minutes of valuable time that they had committed to attending the session.

Where did all this stuff come from? Practical experience for the most part.

The lessons learned came from a long period of working with, and building, technology teams in community broadcasting (starting around 1967. Yes, that's not a typo. 1967).

The underlying thinking in this presentation evolved from forty-something years of practical experience working in and building/leading the teams which created/maintained current community broadcasters, like 3CR, 3PBS, 2MBS, 2NSB and 3ST (a seminal experience: 3ST was the breeder for both 3SYN and 3RRR). Before that there was a activity in school and campus radio; at 3XY, 3MU, 3CT, and with Greg Segal when we both got the bug at Sunday School. I'm especially indebted to the leadership of Bob Liebert and Grahame Wilson in the early days of 2MBS… they showed how a well-motivated tech team could be viable, be valuable to the station, be fun, and take on a life of its own. Finally, I'm indebted to the chief engineer and station manager at 3CS in 1972. Unknowingly, and with high irony, they conspired to fire me as an announcer and set me on the path of being an engineer. Without that piece of (now) predictable risk-management, my life would have been completely different.

Clearly there is an element of the repeat offender here…. and I've often sought answers to the question "why"? Why would anyone constantly throw themselves into an environment which has more potential to be broken and tense than peaceful? Even more importantly, why would anyone want to play team leader in an environment which is guaranteed to be under-resourced and under-appreciated? Yep, those are Very Good Questions. The answers are (for me, anyway) that making and fixing things is much more fun when done as part of a crowd, and a large part of the journey is the social interactions.   But even more importantly, pulling together a team is how you learn stuff. You can always learn from the people around you, and I've been privileged to work on projects which attracted some of the neatest and smartest people around.

Important starting point

- Broadcasting is a technology business
  - If the electrons stop, so do you

- but...
  - that's a reactive approach

- you can
  - use technology to follow.. or..
  - use technology to *drive* the vision

If you don't believe that broadcasting is a technology business, then please leave the room. The people in white coats will look after you.   The presenters will keep the station on the air until the rubber bands finally break.

Many community broadcasting managers or Board members regard technical work as a cost, an impost, a necessary evil, or something equally annoying.

You can look at it another way: technology can be a great driver of social change if it's implemented in a controlled and humane manner.

Think of the technology team as a service department – that is, a group which exists to deliver function on behalf of the business.   You have a choice: treat your techs as a bunch of geeks to be fed occasionally (squandering the potential), or use them to manage the risk of driving the business to new heights, and to implement tools that allow your programmers to be more creative, more effective, and more fulfilled (maximising the potential).

Take option B and along the way your techs will have fun and become an integrated part of the business too.

As a manager, you will achieve much with a modicum of proactive technology deployment, and a bit of boundary-pushing.   As we shall see, you can use your technologists to mitigate the risk of doing out-there things, because that's one of the things they are driven to do for you.

What's a technologist

- *technologist* (n) person who manages or develops the technology used in a business

- the term 'technologist' includes
    - **engineers:** the tool in use is a pencil
    - **technicians:** the tool in use is a screwdriver
    - **paratechnicals:** the tool in use is the technology itself

- technologists are the people who create and run the platform on which your business runs

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The media industry is in a massively transitional state, with all kinds of shifts in tools, work practises, business models and consumer equipment.   The silo-like manner in which jobs used to be managed, and classified, is crumbling.   At the same time, we made training go away, leaving much confusion.

In an environment which requires increasing amounts of multi-skilling just to survive, it's appropriate to move to a more generic term which describes everyone working with the tools of trade. That term is "technologist".

The old terms still apply and have meaning; sometimes too much meaning.   An engineer designs, integrates, negotiates, tests, and debugs.   Much of that work is done without touching bench, tools or hardware.   A technician builds, installs, connects, fixes, and does that almost entirely WITH tools and hardware.

An **engineer** is not higher ranked, better, more skilled or more valuable than a **technician**… they are two quite different skillsets and you need both.   The term "technologist" encompasses both roles, and reflects the reality of today's job: the most valuable exponents seamlessly move between the pen and the screwdriver, between design and hands-on. That's why the term "technologist" is so good.

By the way, a "**paratechnical**" is someone who needs an amount of technology knowledge to do their job effectively, but who is not going to design or install. Paratechnicals need to communicate with engineers and technicians quickly and effectively in a common language. As an industry we need them to learn enough about Technology to be quite comfortable indeed.

Ideally, every presenter at your station will have paratechnical skills, at least to the level needed to follow instructions given over the phone.

Why are technologists needed?

Are you kidding?

- Broadcasting is a <u>Technology</u> Business

- If you don't have a technology base, then
    - How do things get built?
    - How do things get fixed?
    - How are you managing the risk of running the business?

- In our sector, spending your way out of trouble isn't an option

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It had to be said, even though it's obvious.   If we're running a technology business, then working without knowledgeable technologists is a risky proposition.

And rather silly really. At the big end of town, where there is also a screaming shortage of technical talent, is they use money to offset the skills shortage… by buying in, poaching, or repurposing skill, or by making purchase decisions that lessen the skill shortage impact. Note: *not enough* money, but that's another story. At least they have the option of spending their way out of trouble.

What's at work here is the iron triangle of project management: **time-resources-money**.   You can deal with an absence of one by stretching the other two (eg: if you have no money and a fixed amount of resource, then you can achieve the desired result but it will take longer).

You can not – repeat after me – **can not** constrain two of the elements and hope to exist on the remaining one.   It just doesn't work. You will have noticed that money makes things happen faster, and the converse is absolutely true: without money things take longer and have higher risk.

The common factor in the community sector is that nobody has money to burn. If you're already in the position of having cut your capital budget once or thrice, you're unlikely to be in any position to buy in skill either. So you have three choices: grow your own pool of skill, stagnate, or triage some other area to get the money to pay someone.

On balance, growing your own pool of skill becomes a rather attractive proposition.

But… that doesn't happen automagically: the skill shortage is an industry-wide challenge and it's your challenge too.

From where do technologists come?

Nowhere... the broadcast industry is in trouble, big time

There is nowhere to learn and nowhere to hone skill, except

- in community radio
- on the job

Senior engineering jobs in the commercial sector have been sitting vacant for months... or longer

We have the opportunity to step up and **be** the part of the system that generates the future of the industry.

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Since training for the BOCP and TOCP went away… the decline began some time around the mid 1980s… the industry has lost a lot of its learning culture.

It used to be that everyone working in a serious radio or TV technology role did the appropriate course, and these became both a qualification and a certification.   That is, you knew, because everyone had done the same exam and had done the training over at least 5 years to pass the exam, that anyone with a BOCP or TOCP knew the technology business pretty well.

When the qualifications went away, the industry was left with a vacuum.   Around the same time, largely through Aggregation in the TV industry and a change in ownership policy in Commercial Radio, the number of technologists needed started to shrink.   What nobody considered at the time was the sequence: that

- after a significant period of shrinkage and attrition, staff numbers would bottom out

- there would be no apparent need for training because no newbies were being added

- the old hands would get to end-of-life, and retire… or leave the industry completely

- a skills black-hole would appear… with nobody coming up through the ranks.

Not surprisingly this has translated into a small number of qualified young people available, a large number of qualified older people about to retire, and no formal way to build the skills. Add to that: an industry-wide shift to a freelance employment model, and bingo.   Disaster.

The good news is that community broadcasting is in exactly the right place to become the technologist training ground for the industry, in the same way as we are regarded as the training ground for talent and operations staff.

What can we do as a sector to find Technologists?

We have three choices
1. do nothing
2. whine a lot about how bad things are
3. be proactive

Proactive is best, but you will need to understand what attracts and keeps Technologists at your station

There is a really good opportunity for "the system" to engage with community broadcasters to build skill

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So here we are.   We can sit around and maintain the status quo.   We can trade stories about how many disasters have been narrowly averted by an old-fart jumping in to do something clever because the newbie just didn't know, or we can do something about the problem.

Doing something means building a pool of people with skill.

That doesn't mean we have to do it alone. If the big end of town think they might benefit from the Community Sector then they will be willing to engage as part of the process. The big players in this case are everyone who isn't the community sector. Radio: think commercials, ABC and SBS. Since TV also needs technologists, add FOXTEL, the seven commercial TV originators (four regional networks and three Commercial networks), and Imparja.   That's a lot of demand for technologists that we can choose to help drive.

Trust me on this: senior engineers in the commercial sector (radio and TV) might be your best resource.   As long as they don't get put into conflict with instruction and policies of their management, they will always be willing to help.

Remember, we're all in this together, and the commercial organisations (who might be the competition for programming and audience) know that their next trainee tech may well come from your station.   Potentially, you are doing them a huge favour.   As business people, they REALLY understand that.

Bank on it, and proactively chase the opportunity to contribute.

Drivers:
what makes a tech tick?

- Is this complex psychology?   No.
- Technologists are simple creatures, with four fundamental personal drivers
  - present the truth!
  - manage risk…
  - fix things…
  - build things…

Risk

Fix
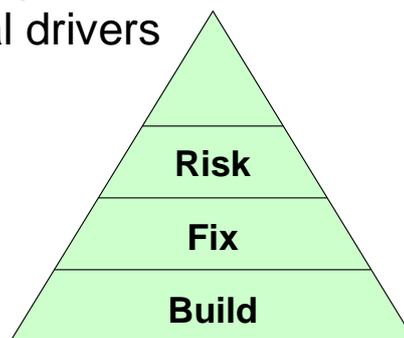
Build

Maiz-lo's hierarchy of Technologist needs

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And now the meat.   Technologists have a number of needs, and as long as those needs are met you will engage and keep them.

"Build" and "fix" are obvious. They are things that every technologist does as a matter of course. Building and fixing are the core gig.

"Manage Risk" is less obvious. Technologists often say "no" to requests because they have assessed the request, worked out what needs to be done to meet it, determined who is likely to be available, sussed the budget available to go and buy the missing parts of the solution, and quickly divined the number of times that they will have to take phone calls at inopportune times.   You might not see have seen or heard any of this conversation in the flash-of-an-instant that existed between your question and the response, but a playout of internal voices is exactly what happened.

Therefore, when a tech says "no" to a request, see if you can tease out why.   You might simply be dealing with a person who has sufficient nous to protect you from an unmitigated disaster.

Or… you might be dealing with someone who wants to be a complete bastard, and that's always possible.   Just put in the back of your mind that you shouldn't assume malice if other interpretations might be just as plausible. By nature, most technologists aren't bastards.

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Truth

Risk

Fix

Build
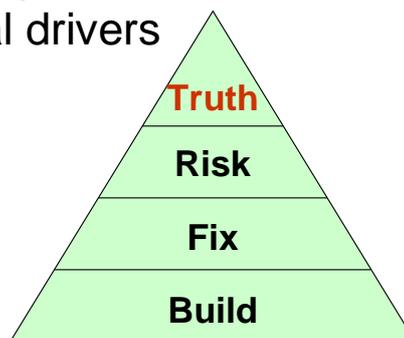
Maiz-lo's hierarchy of Technologist needs

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"Present the Truth". Ask a non-technical manager the question: "what infuriates you about [name of technologist]" and one response would be "I can't get a straight answer".   That's because technologists feel compelled to tell the truth, warts and all, and helpfully try to have everyone around them also understand the truth.   Technologists are, as a race, really bad at marketing and spin because the imprecision of a value proposition most likely will push them out of their comfort zone. Severe discomfort, sometimes.

Technologists make things work, and to do that they have to operate in the domain of fact. You can't fake engineering, it has to be right – a solution either works or it doesn't. Yes, there are degrees of correctness and, in striving to deliver the best result, technologists are party to the 80/20 rule, just like everyone else.   The 80/20 rule states that 80% of any result will be achieved in 20% of the time.

What happens to the remaining 20% of the work that takes the other 80% of the time? For many non-technology jobs, that effort can be dropped.   Stuff might not happen, might be "close enough", but as long as things are close enough to complete – whatever "close enough" is - life goes on just fine.

Unfortunately, "close enough" is rarely a good basis for deployment of technology.   If you want your broadcasts to be on-air for 100% of the time, 80% of the work isn't close enough – and, trust me on this, the other 20% of the work… the 80% of the effort… is a killer. But expect any good technologist to go the mile until things are perfect.   Expect no less.   That's because you can't half-deliver a <u>correct</u> solution. Just-sufficient isn't "right", and it probably isn't even close to "low-risk".

There is truth in engineering. A bridge stays up or it doesn't.   A transmitter works correctly, or it doesn't.

Technologists want nothing more than to be able to say "that's the right answer, and it's 100% right".

If you find a technologist who can also market: then a piece of gold has dropped into your lap – do whatever it takes to keep that person in your organisation.

Recognition: Get Hugs

- After all other conditions have been met, there is one more step to nirvana:

Technologists need hugs

- They need to know that their work is appreciated

- Recognition – appropriate and sincere – is the single most powerful thing you can put on the table as a reward for a technologist's contribution

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 "Get hugs".   After doing something clever, EVERY technologist wants someone to notice. It's the nature of the beast.   It's your job to recognise that this is the most important driver of all. Appropriate praise is your best engagement tool.   Actual hugs optional, and your mileage may vary.

Management warning: let's be blunt.   There are people who are starved for attention, and who will do anything to seek hugs. Some of these people will exhibit behaviours which will seem inappropriate, or may even **be** inappropriate. It is widely recognised that technologists place (or, at least, are credited with having), less emphasis on social skills than the average. That doesn't make them insensitive, or worthy of scorn.

It's just as important to recognise that technologists are rarely driven by need for material gain or personal power.   There will be other people at your station who are motivated by money – that's the key driver for sales people, for instance. But not techs.

As a manager or leader, there are two things that you absolutely should do with technologists to the best of your ability:

1.listen, and don't be dismissive. If someone in your charge has given their all to an activity, at least recognise that, in a positive way. If you find yourself caught listening to a boring, runaway story about how disaster was averted through the actions of your long-suffering tech, at least be polite when you cut the conversation short. You don't have to be dismissive.

2.coach for the behaviours that you want.   You should not accept bad or inappropriate behaviour, but you can recognise/reward contribution and ask for a change in behaviour if you believe that's appropriate, and if you have the skill.   Don't forget "respect for the individual"!

We all do things better if we believe we're appreciated.   Hugs.

Recognition: when the best job is done, what happens?

If….
- everything is fixed immediately
- there is good preventive maintenance
- your people show excellence in risk assessment
- nothing breaks

Then…
- nobody notices!!

So…
- who gets thanked?   Nobody.

YOU must ensure everyone knows about your team

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The great irony of being a technologist is that our best work is done when nobody is looking, and the best measure of success is that nobody notices.

That's miserable.   Work like a navvy to fix a problem – or be even more business-focused and run the tech patch in a quiet and well-managed way – and what thanks do you get? None, because nobody notices.

"Nobody notices" is really good from a business point of view, because if you're a technologist with your heart and soul invested in 100% customer service, then zero impact to the listeners and other volunteers is your biggest KPI.

So as a manager of volunteer technologists, you need to do two things:

1. recognise that this is the right way to run technology. Nobody should notice

2. ensure that those who achieve a "nobody-notices" result are rewarded: make sure that **everyone else is aware of what they missed** when the techos did such a good job.

You should do this because it's the best way to keep your technologists correctly motivated and rewarded, in the knowledge that all your volunteers and Board think as highly of a performing tech team as they might of your star breakfast announcer. You might want to think about the reality of this ranking, because your star breakfast announcer probably can't fix the transmitter but your technologists can almost certainly play CDs and spots.

What makes a technologist feel at home?

- your respect and appreciation
- participation in the operation
- a sense of responsibility
- social atmosphere
  - nibbles
  - drinkies - not necessarily alcoholic
  - whatever it takes to create the honeypot

…but money will not be it!!

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This is a checklist of some considerations for relating to technologists.

All of these play to the four key drivers of a technologist, and many are just good practise and common sense.

Creating a social atmosphere may well be the most important weapon in your tech-team arsenal, because once social cohesion is established, and the team meets regularly, the job of role and work integration gets a heap easier.

You'll also find that managing a team is many times easier than managing an individual to achieve the same result.

My personal experience is that technologists aren't motivated by money (it's a generalisation, of course. Your mileage may vary).   Nor are they typically motivated by alcohol.

This chart goes back to the "hugs" line.

Important skills and attributes: what do you look for?

See if you can find someone who is already playing in the sandbox, and look for signs of
- fixing
- tinkering
- track record in any area
- wild enthusiasm
- lack of smoke*

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Sales principle: it's 10 times easier to retain an existing customer than find a new one. Volunteering principle: start with people who are in your back yard and see if they have the skill you need – or that you can train and bring into the fold. It's 10 times easier to find someone nearby.

A good candidate will be someone who shows aptitude for getting things to work – possibly not with broadcast technology, so be on the lookout for related skills, like fixing the lawnmower, or even just changing tap washers.   Self-starting, or working without supervision are good behaviour points.

The most important skill for a tinkerer is to not break things.   A wildly enthusiastic Dr Destructo might not be the best person to have on the Engineering team.   So look for someone who is at least breakage-neutral, and understands practical application of the "Unified Theory of Smoke".*

* The "Unified Theory of Smoke" is one of the most important guiding principles of manufacturing.   It works like this:

- all equipment has smoke inserted at manufacturing time.   It is the smoke which makes the equipment work.

- if something goes wrong with the equipment, the smoke might escape.   Should that happen, the equipment will stop working.

- the only way to restore the equipment to operating status is to put the smoke back in. That probably means sending the equipment back to the manufacturer.   Smoke replacement may well be expensive.

So, you're looking for a person who tinkers, but doesn't produce smoke.

What skills does The Industry look for?

The skills needed in Community Broadcasting are the same skills needed (and sought) by the Big End of Town

- ability to do the job (build/fix/manage risk)
- numbers/budgets
- project planning
- documentation/literacy
- selling/presentation

So build those skills in your people. Help them.

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Take a moment to consider a value proposition.   We all know that community broadcasting is used as the training ground for announcers and managers… and it works the same for technologists.

A really good way for you to attract people to your station is to offer training and mentorship in soft and hard skills that they can use to get gainful employment, or build their career competencies.

You might well ask yourself: what happens when you train these people and they leave to get a paying job somewhere else with those skills?

"Bucket half empty" response: we've wasted our time and money training someone who has gone.

"Bucket half full" response: what a GREAT problem to have.   As soon as people realise that you provide a better experience than anywhere else, you have a much better chance of attracting talented technologists.

And, by the way, not everyone jumps ship.   If you have a good enough reputation, you can bet that a few experienced people will be prepared to hang around to pass their chops to the newbies.

Attract your starter set

- people will rally round to do almost anything...

   …once
   …if you ask

- but it is up to you to ask!!

So:
  - create a project, even if it's artificial
  - the project doesn't have to be technical

"Barn-raising" is a great way to put people where you can spot their talent

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The best way to get a team together is to give them something to do.   So, go and find an activity for which a team is the solution, and then proactively go after people to be part of the team.

There are some fundamental truisms of volunteer management that you need to know, and which you can use to advantage:

1. people will do things if you ask

2. people will probably not do things if you don't ask

3. no matter how hair-brained the idea, a team which has committed will rally round to make it happen.   They might never come back, but most people honour their commitments.

So the trick is to create an event which delivers a useful outcome for your station, and which pulls together people whom you can then observe.   If you do it right, you can pair off newbies with old hands and do some skills transfer at the same time.   Even better, go after skilled people from outside your station on the basis that you want them to transfer skills to your volunteers.

This is a bit like the Amish barn-raising project. It becomes a major social activity as well as a creative exercise.   Social is good!!

How to attract technologists through project work

Some examples:
- the shiny new studio
- Studio-Transmitter Link
- OB
- fix the phone system
- Replace airconditioning

Tips:
- Don't be afraid to grow people into the technologist role
- Don't be afraid to ask the old farts for help

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There are so many projects that you could do and use to attract some technical people to your station.   It's up to you to be creative about the actual project, but remember that there will always be people who are willing to help you with the development phase.

In particular, see if you can find someone who is just on the cusp of leaving the industry, or has recently retired. Old hands are almost universally willing to give of their time if the outcome leads to a passing-on of The Knowledge.

Start-looking 101: go for the obvious

- Hit on your mates
- …or their mates
- …or their mates' mates
- …or the old-farts' mates (or even the old farts)
- Advertise on your station!!
- Check the schools – especially via careers advisors
- Other community groups
- The (local) paper

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The best source of resource for any team is people who know.   At least that gives you a chance to identify available skill sets in advance.   Play the degrees of separation game: ask your mates if they know someone with the right skills.   Call the local radio (or TV) station and ask for help… and if they can't help, ask them to refer you to someone who might be willing to toss in a small amount of time.

Running radio ads to attract newbies is such an obvious thing to do that hardly anyone does it. This is a pity, because my experience is that advertising almost always gets good results.

Get a reputation for promoting talented techs

Same process as programmers and on-air talent…

If you have a reputation for finding and placing people,

>   then

Newbies will be attracted to your honey-pot

- TSC will do what we can to help

The absolute <u>worst</u> (and avoidable) trap for managers:
- don't treat training as an unrecoverable cost

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I've lost count of the number of times a manager has opined that "I spend time and resource training these people, and no sooner do we get them to a reasonable level of skill than they vanish off to a paid job in commercial radio".   OK, I get it: you offer training, they come and avail themselves of the training and then vanish. You feel cheated and used. Your station has the reputation of the place where people go so that they don't have to spend their own money acquiring skill.

What a reputation to have.   The more that people think your station represents a stone on their career path, the more likely they are to come knocking on your door. You should actively build a name for training and assisting newbies. Some will go.   Some will stay.   All of them will remember that you gave them the start that they needed.   Plus… what would you rather have: nobody to train, or a pool from which to choose?

Community broadcasting has for some time been regarded as the entry point for people who want to work in creative or presenter roles in commercial radio… and to a lesser extent, the ABC and SBS.

But we've offered precious little in terms of skilling up other roles. So now how about we make it obvious that we regard ourselves as the entry point for technologist training as well, and take the high ground?

Make a bit of investment… anticipate and expect a bit of payback!

Training

What do you do to train techs if you don't know this stuff yourself?

- Engage with community of interest
- Participate in creation of practise notes
- Get involved with TSC work

- Support the concept of **TSC Technorama** and engage/send your people

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Speaking of training, let's have some.   Lots, please

Unfortunately, right a this minute there isn't a lot of formal training to be had. And it's likely that your station will have limited trained resources, so what do you do?

One thing that we do know is that technologists love passing on knowledge, and if you know someone in the industry, go and ask them to help. Here's a surprise – even "the opposition" will most likely be willing to help if you ask. But you have to ask.

Creation of training isn't an instantaneous process, and so the CBAA Technical Standing Committee (see chart 27) is starting a number of projects directed towards self-help:

• practise notes, containing how-to, tips, commonly used approaches, and sneaky tricks which make life easier.

• a get-together of technologists within the sector, to build community of interest

• skills-inventory, gear-inventory, and lots of knowledge about each other

The other thing we need to get behind is creation of in-house training based on the CUF-07 training package, and that's the topic of a further piece of work.

Care and feeding:
<u>burnout</u> is your big enemy

- A good tech can and will do anything... once.

- If you don't want mass defection, consider how to manage technologists as a critical resource
  - rosters and callout schedules
  - use severity codes
  - give your people downtime
  - allow the technologists to say "no"
  - Say "no" for them
- Assume that you can only <u>ever</u> do so much….

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So, you've done all the right things, and built up a really good team. They walk on water for you, and do everything they can to support the station.

What's the big enemy then?   Burnout, which is when your very critical and precious resource finds themselves driven into the ground with demands that they aren't able (or prepared, or willing) to meet.

First thing your station needs to know is that your team is finite, and so their commitment needs to be managed. You can help by ensuring that they feel loved, and that their project work is managed in a way that doesn't exceed reasonable expectations.   Reasonable is working strange hours **when** that's agreed.   Reasonable is pulling out all the stops to deliver a top result for the **special** project.   Reasonable is living off pizza and coffee for short bursts.

But every volunteer has the right to say "enough", and it stops being reasonable when "enough" isn't respected.

So here's one of the best tools which can be used to protect your team from overload: **classify all support (and development) activities by their severity.** Then ensure EVERYONE is familiar with the model and knows you don't call support at 3AM to fix a CD player.

Manage burnout by using Severity codes

Sev	Situation	Who is called	When
1			
2			
3			
4			

It's a pretty simple system, and it's universally understood. The computer industry has been using it for years, very effectively. It goes like this:

There are four levels of severity, One to Four. Cute naming, huh?

1. **Sev One** is the most severe, when operations really can't continue.   You're off the air. No bypass. The listeners can't help but notice.

2. **Sev Two** is really severe, but things aren't totally lost. Just really bad at the station. You're not off the air, but things might be rather torrid. Your audience might notice… they possibly will. But you're not off the air.

3. **Sev Three** is totally annoying in the studio, but with a little effort your listeners won't even know. You can manage a severity three, and the support people get to go home if they're past their use-by moment.

4. **Sev Four** is annoying, but almost without impact. In fact, you could live for ever with a severity four state and nobody would be much put out.

Manage burnout by using Severity codes

Sev	Situation	Who is called	When
1	●DOWN! ●No program ●No workaround	On-duty person Chief	Immediately You decide
2			
3			
4			

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So here's what you do with a Sev One.

Escalate, and quickly.   You're off the air, remember? So you should have a clearly defined callout sequence, know who to call if the first (and second and third) person isn't available. And you should have a tracking document that shows who was called, when, and why.   That way you have something to discuss at the Incident Review, which should always follow a Sev One or Sev Two occurrence – you want to learn from your experiences, yes?

But before someone picks up the phone: If you're not off the air, is it really a severity one call?

And this is the power of the system: as soon as your team understands the difference between life and death, you have a reasonable chance of correctly managing who gets called, and when.

Summary: Severity One needs the cavalry, and you should have a procedure which identifies who that is.

Manage burnout by using Severity codes

Sev	Situation	Who is called	When
1	●DOWN! ●No program ●No workaround	On-duty person Chief	Immediately You decide
2	●Severely degraded ●On air, but ●No workaround	On-duty person Chief	You decide, but probably immediately OD person decides
3			
4			

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A Severity Two situation needs immediate attention, but it might not need the cavalry.   Your rostering process should identify who is the first callout, and who gets called next.

The callout person should have the authority and backing to say "live with it" if that's the best way to handle the situation.   Ideally, you will already have thought about what might be a Sev Two, and have a defined procedure.

The point here is that your technologist team will benefit from knowing that you will back them when a severity two call comes through.

Even more importantly, your presenters should know that, while a severity two situation might be grossly inconvenient to them, and highly important to the station: so are the private lives of your tech team.

By the way, there is another side to this.   You should be arranging your operation in a way that allows Sev Two situations to be mitigated.   That means having a backup strategy for everything from the transmitter to the second CD player and the third microphone.

Manage burnout by using Severity codes

Sev	Situation	Who is called	When
1	●DOWN! ●No program ●No workaround	On-duty person Chief	Immediately You decide
2	●Severely degraded ●On air, but ●No workaround	On-duty person Chief	You decide, but probably immediately OD person decides
3	●Somewhat degraded ●Workaround	On-duty person	Business hours
4			

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Severity Three problems DON'T need callout attention.   You have a bypass which might be inconvenient, but which results in no degraded service as perceived by the listeners.   That's the important metric: the listeners don't notice. The ducks might be paddling furiously in the studio, but the listeners don't notice.

Examples of Severity Three

• A CD player has failed.   Presenter has to change CDs while talking.   It can be done

• One of the microphones has failed.   Two people can share a mic.

• The presenter has to swap to the backup studio which isn't as comfortable to operate.

None of these is so bad that someone has to get out of bed and rush in.

It might be that the presenter can be talked through an equipment change (that's the "paratechnical" role), or the work might have to wait until business hours when more experienced help is at hand.

Manage burnout by using Severity codes

Sev	Situation	Who is called	When
1	●DOWN! ●No program ●No workaround	On-duty person Chief	Immediately You decide
2	●Severely degraded ●On air, but ●No workaround	On-duty person Chief	You decide, but probably immediately OD person decides
3	●Somewhat degraded ●Workaround	On-duty person	Business hours
4	●Annoying.. but no impact on listeners ●Workaround exists	Nobody	At next maintenance window

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Severity Four problems can wait.   You might advise someone, but you do not need to call anyone.   If you need to call someone, if it's so urgent, if it can't wait because there is no way to prevent the listeners from noticing, then it isn't Severity Four.

There was a short period when a breakfast announcer regularly called me at 0550 to tell me that something was wrong with a keyboard, or that a light was blown, or that…   well, nothing that impacted his ability to get started and do the first hour of his show before calling at a more reasonable time.

Worse, he talked about all his technical problems and disasters on-air which did nothing to encourage any of the engineering team to support him.

Eventually I got sick of this, and many people would regard it as a form of abuse.   Yes, I'd agree with that: it was flagrant abuse of a volunteer resource.

It also seriously annoyed the other members of my household, which was even less fair.

Protect your technologists, and ensure that they get a fair go.

Question: How many Community Broadcasting Technologists does it take to change a light bulb?

Answer: If you want the studio and TX fixed, organise someone else to look after the lights.

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Another way to burn out your people is to misuse their skills.

Asking (or pushing) your technologists to do stuff that other people could do is a great timewaster – while the techos are doing trivial jobs, they aren't doing things that only they can do. From experience, they will want to fix light globes, broken washers, and door locks. And you can let them, or you can get in first with the second-level cavalry.

Other volunteers can be assigned to do semi-technical jobs… like cleaning the console. Speaking of cleaning, feel free to arrange someone to vacuum the floor so that the tech team doesn't die of a dust allergy while trying to do maintenance.

Here's another way to drive technologists away at speed. Use this line:

"If you can't do this (*now/when I demand/in the way I insist*), I'll find someone who can".

Apart from being incredibly rude, it's a guaranteed way to create angst, lose credibility and drive away your support team.

Buy or build?

- Even if you buy, it's important to have skill to build
- Surprise, surprise: it applies to people also
- If you are paying for technical support
  - Put KPIs in place to get skill transfer to volunteers
  - Use volunteers to provide first-call support

Warning: do not expect someone… anyone… to be both paid <u>and</u> volunteer

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Many community radio stations employ fulltime or part time technologists.   None of the following should be taken to suggest that there is anything wrong with this…. in fact, the opposite is true.   Employment is a good driver for upskilling, and my experience is that the community sector has <u>at least</u> as good a calibre of professional technologists as the rest of the industry.   Probably a higher calibre, because the nature of community broadcasting requires more to be done with less and more inventively than is typical for our commercial brethren.

Where the paid model breaks down is where community stations neglect the opportunity to build and maintain a complementary volunteer technologist team.   That's sad when it happens.   Although it might first seem that volunteers might take work away from the professionals, the more likely outcome is a symbiotic model which benefits both.   The volunteers benefit from skills transfer, and a stronger ability to contribute to the station.   The professional becomes freed to devote some amount of time to more complex activities.

Just as with all staff, you owe it to your contract technologists to set KPIs and provide feedback.   One of those KPIs could well be a requirement to on-board and skill-up some number of volunteers, who can then perform first-level (and Sev 4) support.

A warning, though. If you have contractors who might also be mates or volunteers, beware. Unless you put a very, **VERY** clear set of paid-vs-unpaid work definitions in place, you are creating a situation which could become most…well, unpleasant.

MITC: Media Industry Technologist Certification

- Industry-wide project to restore learning culture to technologists in the media industry
- Radio is integral component of scheme
- Radio is a major player
- Recognises that we're the last training ground
- MITC activity has potential to build bridges to other sectors
- Community broadcasting Technologists should be encouraged to certify with MITC

www.mitc.tv

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Pretty much as the chart says here, MITC is industry-wide, and is playing a vital part in getting the industry reskilled.   While it's hard to find skilled technologists within the community sector, many industry leaders consider that the skill shortage at the big end of town is chronic.   So bad it's almost beyond hope. Why is this?

Over the last 25 years, the media industry in Australia has changed in a way that delivered an unexpected result: all the training for technologists "went away", a corporate term which means "*there isn't any industry-specific training available because it shut down*". **MITC** (pronounced "mit-see") came about when, in 2006, a bunch of people got together and concluded that unless we do something, there won't be any training to skill-up media technologists, after which there won't be any skilled media technologists. And the skilled old hands rapidly approach retirement.

MITC aims to create a certification process which will encourage (re-)creation of the learning culture we used to have.   MITC spans a number of skill areas, called Domains, and Radio is one of those.

As part of the MITC mission, it was realised that the community sector has the potential to become a major industry training-ground for technologists, in the same way that we provide the leg-up for people who want to become creatives.   As MITC comes online, you should consider getting your volunteers to certify.

What is the CBAA TSC doing to further the cause?

- CBAA Technical Standing Committee is just getting started
- Strong emphasis on ENABLING
- Creating work products which foster transfer of skills and knowledge
  - Practise Notes
  - Online Fora
- Sourcing of hardware and software
- Staging a formal Technologist get-together
- Building a network of technologists within the sector

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The CBAA Technical Standing Committee was formed in 2008 to provide specific focus on the technology challenges that face our membership, and specifically to:

• Foster and develop a technical community throughout the community broadcasting sector

• Encourage discussion amongst the sector with regard to technical issues and the needs of stations

• Through on-line collaboration, encourage contribution to the development of technical resources for training and skills development

• Focus on activities which are enabling of development within the community

Most of the TSC's work is going to be achieved by working with people, to develop a community of interest and provide tools which allow technologists in our sector to achieve self-help.

We are expecting to announce, in 2009, a mini-conference of technologists which will work towards these aims. Keep an eye out for the announcement, and plan to send your people. There has been miniscule investment in technologist development in the 25 years of our sector's history, and it starts now. I encourage you to send someone to the event when it happens.

Get behind the TSC, and encourage your technologists – whoever they are – to be personally involved.

Big finish

- You CAN build a Technologist team, but it takes effort
- TSC needs your input to size the challenge
- We need your support to ensure focus and funding

- The future of the industry is in your hands
- The future of your station is up there too

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Let me finish with a few conventional wisdoms:

• *You get what you measure*. If you create measurable targets for your station (at Board level, preferably) which include building a technology team, then it can happen

• *Volunteers are there because they want to be.* If you create an environment which understands their needs and encourages participation, you'll have a much better chance of building a happy team

• *The greater industry is crying out for skills*. If you structure your station so that potential participants can see it as a stepping stone to a career, you have a value proposition which will attract people.   Some of those people will stay regardless

• *Nothing will happen without your encouragement.* Get involved in solving the larger problem, because that way you will help generate the tools which solve your immediate problem.

• *There is nothing wrong with having fun*.   Or pizza, or coffee, or getting together on Saturday to swap tall tales. Project work is good too

• *Build things. Fix things.   Manage risk. Present the truth. Get hugs.*   All you need to know.

As a manager, *you* have influence and I encourage you to use that influence wisely.