

# Technology in the Bible

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## Intro

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There are no passages in the Bible that explicitly prescribe a Christian response to technology. Nevertheless, a close reading of the Bible can inform Christian attitudes in several ways:

- ◆ We can correlate the Biblical text to other sources of history to understand the prevalence, cultural assumptions and economic importance of technology.
- ◆ We can infer what attitudes and assumptions the Biblical writers held with regard to their experiences of technology in their own age, and use those as case studies to inform our own attitudes and assumptions.
- ◆ We can learn about how people have employed technology for both godly and ungodly purposes and derive principles for our own decisions about the value of technology.

In the end, there is no fundamental difference between how Christians should decide about the use of technology and how they should decide about most of life's questions. When there is no definitive Biblical statement on the topic, we apply core principles of Christian discipleship such as the call to stewardship over creation, the Great Commandments (Matthew 22:37 - Matthew 22:40), a desire for holiness, a total reliance on God, a commitment to the community of faith, and an expectation that God will give us wisdom (James 1:5).

## Metaphoric applications of technology

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Many verses in the Bible uses some type of technology as a metaphor for something more spiritual. Examples include:

- ◆ Winnowing out the wicked (Proverbs 20:23, Luke 3:17)
- ◆ Job says his days go past as fast as a weaver's shuttle (Job 7:6)
- ◆ God is a shield around us (Psalm 3:3 and many other places)
- ◆ God's word is a lamp (Psalm 119:105) and sharper than any double-edged sword (Hebrews 4:12)
- ◆ God as refiner (Isaiah 1:25, Isaiah 48:10, Malachi 3:2, Zechariah 13:9)
- ◆ Jeremiah was as strong as a fortified city, an iron pillar and a bronze wall (Jeremiah 1:18)
- ◆ God uses Israel to 'test the metal' of other nations (Jeremiah 6:27ff)
- ◆ The tongue is like a bow, shooting lies (Jeremiah 9:3, Jeremiah 9:8)
- ◆ Paul instructs us to put on the armour of God (Ephesians 6:13ff)
- ◆ Jeremiah is like a fortified city, an iron pillar and a bronze wall (Jeremiah 1:18)
- ◆ God's heart laments for Moab like a flute (Jeremiah 48:36)
- ◆ God's arrows can discipline us (Psalm 38:2), even the deadly arrow of famine (Ezekiel 5:16)
- ◆ A yoke symbolises a burden or oppression or a bond, often in the context of God relieving that burden (e.g. Genesis 27:40, Exodus 6:6, Leviticus 26:13, 1 Kings 12:3ff, Psalm 106:28, Matthew 11:28, 2 Corinthians 6:14, Galatians 5:1)
- ◆ The hearts of unrepentant Israel are like hot ovens, fired by intrigue, lust, wine and passion (Hosea 7:4 - Hosea 7:7)
- ◆ A plumb-line provides a standard reference point against which our conduct can be judged (Amos 7:7 - Amos 7:8, Isaiah 28:17)

## A Christian Response to Technology

- ◆ Our bodies are like clay jars (2 Corinthians 4:7) and like tents (2 Corinthians 5:1)
- ◆ The Laodiceans are advised to buy salve for their eyes (Revelation 3:18)

Jesus makes powerful metaphoric use of technology to draw his audience from something that they know well towards some new spiritual concept. This is both great communication and tacit approval for the use of technology. Some examples are:

- ◆ The kingdom of God is like a fishing net (Matthew 13:47)
- ◆ Don't hide a lamp under a bowl (Mark 4:21, Luke 8:16, Luke 11:33)
- ◆ Vineyards and wine-presses (e.g. Mark 12:1)

The frequency of metaphoric references indicates a broad acceptance among the Biblical writers of the technologies of their time. If the writers were in any way opposed to technology, we could expect them to avoid these types of metaphors, or to use technological metaphors dismissively or scornfully. But none of that is evident.

## God's use of technology

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God needs no technology to accomplish any of God's purposes. Although God uses various techniques, no tools are required. God achieves the desired ends by simply speaking things into being. God's word caused the whole universe to be created (Genesis 1, John 1). God's word is sharper than any double-edged sword (Hebrews 4:12) -- by implication, God's word is more effective than any technology.

There are times, however, when God chooses to use technology (normally metaphorically) to interact with humans. For instance:

- ◆ God is a refining fire/furnace, consuming the dross and purifying God's people (Zechariah 13:9, Ezekiel 22:17 - Ezekiel 22:22, Malachi 3:2)
- ◆ God created a chariot of fire to carry Elijah away (2 Kings 2:11)

Jesus used various technologies: as a carpenter he would have used wood-working tools; he travelled in boats; wore clothes; lived in houses; made a whip. But he didn't need any technology: he could turn water into wine rather than rely on the traditional technique (John 2:1 - John 2:10); he could walk on water rather than rely on a boat (John 6:19); no doubt he used doors and yet he could pass through a locked door (John 20:19, John 20:26).

God is often said to use weapons:

- ◆ God uses a sword to keep people away from the tree of life (Genesis 3:24)
- ◆ God wields Assyria as a weapon against Israel (Isaiah 10:15)
- ◆ God uses Babylon as a sword against Israel (Ezekiel 21)
- ◆ God punishes with a sword (e.g. Isaiah 27:1, Isaiah 34:5, Isaiah 66:16, Jeremiah 9:16, Jeremiah 12:12)
- ◆ Israel is God's weapon (Jeremiah 51:20 - Jeremiah 51:23)
- ◆ God gives Israel horns of iron and hoofs of bronze with which to break to pieces many nations (Micah 4:13)
- ◆ Jesus wields a sharp double-edged sword (Revelation 1:16, Revelation 2:12)

## Technology in relation to Redemption

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Prior to The Fall, the Bible does not mention of any tool. God created a world in which technology was not required. Food was readily at hand, natural shelter was provided, and health was assured. So is technology just the result of sin and if so, should Christian's avoid using it?

In [Four Questions for Technology from the Biblical Story](#) and [From the Garden to the City: Technology in the Story of Redemption](#), John Dyer suggests that:

1. When a person creates a new tool, the display of creativity and ingenuity glorifies God by displaying the imago dei even if the inventor was not attempting to do so. (Reflection)
2. All technology has the potential to be used for sin. Technology is inseparably tied to humanity's rejection of God and God's grace toward humanity in allowing us to continue. (Rebellion)
3. Technology is almost always designed to overcome an effect of the Fall. It, therefore, can function redemptively and yet simultaneously represent the inadequacy of our attempts to live without God. (Redemption)
4. When technology fails, rather than causing us sadness and grief, they offer us a chance to reorient our hope away from our technology and toward Christ's return. So when you get a blue screen of death or an iPhone lockup, rather than curse in disgust, it should be an opportunity to say, "Come, Lord Jesus, Come!" (Restoration)

## Musical instruments

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To the extent that music requires a manufactured instrument, it involves technology. We may think that "technology" only implies modern electronic devices, but at various times in history all musical instruments must have seemed like new-fangled technology. The instruments themselves are tools for achieving some human purpose and hence are a form of technology. The ability to manufacture musical instruments also implies the use of other tools.

The Bible is extremely positive in the way it describes musical instruments, especially in the context of those instruments being used to praise God. Psalm 150 is the prime example of this.

Numerous types of instruments are mentioned in the Bible, including:

- ◆ Stringed instruments such as harps, lyres, lutes
- ◆ Wind instruments such as trumpets, horns, flutes, pipes
- ◆ Percussion instruments such as tambourines, bells, cymbals, sistrum

See the book "Musical Instruments Of The Bible" by Jeremy Montagu.

## Metal refining

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The first mention of metalwork in the Bible is quite early: Genesis 4:22 describes Tubal-Cain as a forger of bronze and iron tools. Silver money is first mentioned in Genesis 20:16 and gold jewellery in Genesis 24:22. Similar references to refined metal and metallic objects are spread throughout the Bible. Such references imply the existence and acceptance of mining, refining, furnaces, and weighing.

1 Kings 7:46 indicates that bronze was fashioned into many ornate shapes by casting it in clay moulds.

The process of metal refining is applied metaphorically to the human condition in several places, including Proverbs 17:3, Proverbs 25:5 - Proverbs 25:6, Proverbs 27:21, Isaiah 48:10, Jeremiah 6:27 - Jeremiah 6:30 and Zechariah 13:9. An important component of that process is the removal of dross (Isaiah 1:25, Jeremiah 6:29), which can only be done when the raw materials are heated to melting point. To achieve our purification, God is a refiner's fire (Malachi 3:2). Virtually the same point is made by another Biblical metaphor: that of winnowing to separate the grain from the chaff (e.g. Proverbs 20:26, Isaiah 41:15, Luke 3:17).

The Bible also points out that gold is less desirable than the law of the Lord (Psalm 19:10) and of less worth than faith (1 Peter 1:7).

## Craftsmen

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Craftsmen (I don't know if the Biblical terminology includes women or not) are people who use the tools of their trade -- be it pottery, fabric, carpentry, metal work or stone masonry -- to fashion raw materials into something useful or beautiful. What they fashion might be honouring to God or not. In the latter case the Bible is obviously critical -- for instance the condemnation in Deuteronomy 27:15 of craftsmen who make idols, and Paul's response to the opposition of "Alexander the metalworker" in 2 Timothy 4:14.

The skills and the wisdom of craftsmen are bestowed by God (Exodus 28:3, Exodus 35:31). In fact Wisdom herself is referred to as the craftsman at God's side ([Proverbs 8:30]). One of the outcomes of God's craftsmanship is us -- "we are God's workmanship" according to Ephesians 2:10. God crafts us with the tools of love, grace, relationships with others, suffering and the Spirit of Christ Jesus within us. We have been manufactured for a purpose and to the extent that our creative workmanship honours God, we are functioning as designed.

From Exodus 26 to Exodus 30, God describes his design for the Tabernacle, and a list of the required furnishings, priestly garments etc. Then, in Exodus 31:1 - Exodus 31:11, God appoints Bezalel as the chief craftsman and Oholiab as his assistant. Note the phrases "I have chosen", "I have filled him with the Spirit of God, with skill, ability and knowledge", and "I have given skill to all the craftsmen". The role of the craftsman is no less spiritual or dependent on God than those who serve in other ways. This is reminiscent of the selection of deacons in Acts 6, where even the menial task of handing out food required candidates who were "full of the Spirit and wisdom". No less is true of modern technologists, who must still recognise that the abilities with which they serve God were given by God in the first place. To serve God as a computer programmer or engineer or doctor requires us to be filled with the Spirit and wisdom of God.

Bezalel and Oholiab were generalists, who could create artistic designs and undertake work in metal, stone and wood. They also lead and managed other craftsmen. In Exodus 35:30 - Exodus 35:35, Moses extends their mandate to include teaching. We continue to recognise leadership, management and teaching as important roles for technologists. The best technologists not only design and create, but also pass on their knowledge and act as role-models who show how a true craftsman brings glory to God.

Another interesting example of the appointment of a senior craftsman is when Solomon requests assistance to build the Temple from the king of Tyre (2 Chronicles 2:7), who responds by sending Hiram-Abi (2 Chronicles 2:13 - 2 Chronicles 2:14, see also 1 Kings 7:13 - 1 Kings 7:14). Lest the reader wonder about a hired foreigner playing such a major role in the building of the Temple, the writer points out that Hiram's mother was Jewish. Hiram's skills are similar to Bezalel's and Oholiab's, as well as being proficient in textiles and engraving.

In summary, craftsmen are honoured in the Bible to the extent that they apply their skills to God's glory. Their use of technology for that end is repeatedly encouraged.

## Design and construction

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### Altars, the Tabernacle and the Temple

In the Old Testament accounts of Noah's Ark (Genesis 6) and the Tabernacle (Exodus 25 - Exodus 31), God dictates a detailed design but says nothing at all about the construction methods. The design of Solomon's temple was communicated in a slightly different form: in 1 Chronicles 28 we are told that David gave his son Solomon written plans "that the Spirit had put into his mind" (v12). "The hand of the Lord was upon me and he gave me understanding in all the details of the plan" (v19).

In each case, it can be assumed that God expected the people to make whatever use of technology was appropriate to achieve the goal. Perhaps this is no surprise, but we should not overlook the fact that

there could have been other approaches. God could have made tools unnecessary, or provided all the tools that were necessary. God could have specified exactly what to do rather than leave so much open to Noah, Moses and Solomon's initiative. But God's typical approach when acting in the world is to delegate. God lets us know the goal and an ethical framework, even the wisdom and resources, but then relies on our initiative to work out the details.

One exception to this pattern is the instructions about building altars. Exodus 20:24 - Exodus 20:25 is very specific in the directive that unhewn stones be used, undefiled by tools. In particular, the use of iron tools is forbidden (Deuteronomy 27:5, Joshua 8:31). The reason for this prohibition is not made explicit. Altars were to be made of natural materials -- earth and stone -- rather than being manufactured. They were to be unadorned, perhaps so that no symbol or image will lead to superstition and detract from the worship of God alone. Such altars are temporary and eventually superseded by the sacrifice of Christ. Jesus is likened to a cut stone, formed not by human hands (Daniel 2:34, Daniel 2:44 - Daniel 2:45) and although he was rejected by the builders he has become the foundation stone of everything that God has built (Psalm 118:22, Luke 20:17, Acts 4:11, 1 Peter 2:7).

The construction of the Tabernacle was a major undertaking, both technically and politically: the Biblical account spans 16 chapters, from Exodus 25 to Exodus 40. Bezalel and Oholiab direct the project, but the work is not just carried out by professionals. Exodus 35:10 - Exodus 35:29 indicates that "all who were willing, men and women alike" brought their gifts and applied their skills to the task.

The temporary nature of the Tabernacle is alluded to by Paul when he describes our bodies as merely a tent that will be replaced by an eternal house in heaven (2 Corinthians 5:1). Even the Temple was temporary. When Jesus' disciples marvelled at the magnificent Temple, Jesus was not impressed (Mark 13:1 - Mark 13:2). Within a generation, the Temple was destroyed. No building (or anything else built by people) is as magnificent or as sturdy as God. From John 2:19 - John 2:21 we understand that it is only the Temple of Jesus' body that can be destroyed and yet remake itself.

Paul goes further by describing us as a Temple, with Christ as the foundation. The wording of Ephesians 2:19 - Ephesians 2:22 applies that concept to the church collectively as well as to Christians individually. 1 Peter 2:4 - 1 Peter 2:5 says much the same thing -- that we, like Jesus, are living stones, being built into a spiritual house.

It is implied by both Paul and Peter that the builder is God. In fact, God is the builder of everything (Hebrews 3:4), the archetype of the very concept.

## **Building on a solid foundation**

Every wise builder understands the need for a solid foundation, just as every software engineer needs a solid development platform, every scientist needs a robust experimental method, every mathematician relies on the axioms of set theory, and every mobile phone carrier needs a reliable infrastructure. Do we build our worldview with the same attention to the foundation?

As discussed above, both the Old and New Testaments point to Jesus as that foundation. Jesus claims the same about himself in Matthew 7:24 - Matthew 7:27 (repeated in Luke 6:46 - Luke 6:49) -- people who put his words into practice are like wise builders who build on rock rather than sand.

## **Walls**

Many cities in Biblical times were encircled by walls. When the Israelites spies returned from Canaan, they reported "walls up to the sky" (Deuteronomy 1:28). The people were daunted, but God empowered them to destroy all 60 walled cities in Bashan alone (Deuteronomy 3:4 - Deuteronomy 3:5). Putting aside the problematic theme of such a violent God, one lesson from this is that God's people need not fear the technology of their enemies. That point is made explicit in Deuteronomy 20:1.

## A Christian Response to Technology

The Israelites themselves spend a lot of time constructing walls, for example when they returned to Jerusalem from exile in Babylon -- that's one of the main themes of Ezra and Nehemiah.

### Other references

Other references to construction include:

- ◆ While in Egypt, the Israelites were given a quota on brick making (Exodus 5)
- ◆ Hezekiah built a tunnel to bring water into city (2 Kings 20:20, 2 Chronicles 32:30)
- ◆ Solomon built houses, and reservoirs to water his gardens (Ecclesiastes 2:4 - Ecclesiastes 2:6), but realised that it was meaningless (Ecclesiastes 2:11)

## God's people appropriate technology from other cultures

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Christians should not act as though technology developed by "us" is any better, either technically or morally, than that developed by other cultures. The Bible contains several examples of God's people approving of and appropriating technology from other cultures:

- ◆ The process of embalming was used by the Israelites as a result of Joseph's exposure to Egyptian practice (Genesis 50:2, Genesis 50:26)
- ◆ Solomon imports a foreign craftsman to assist in the building of the Temple (1 Kings 7:13 - 1 Kings 7:14, 2 Chronicles 2:13)
- ◆ Solomon imported chariots from Egypt and resold them to other nations (2 Chronicles 1:17)

## Communication technology

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The ability to communicate is a basic requirement of social life and the Bible includes numerous references to humanity's development of tools and techniques for communicating.

The fundamental archetype of all communication, and the first mentioned in the Bible, is the word of God (Genesis 1). God speaks and it happens. In other cases, God uses intermediaries to communicate to humans: through angels, a donkey Numbers 22:28, dreams, prophets, a disembodied hand Daniel 5 and ultimately through Jesus Hebrews 1:1 - Hebrews 1:2. Conversely, as attested throughout the Bible, we can communicate to God through spoken words.

According to the story about the Tower of Babel (Genesis 11), God deliberately caused people to have multiple languages so we would not understand each other. Some may say that if God has imposed that restriction on us then we ought not work against it by developing better ways to communicate. But an approach with more Biblical support is one that parallels our response to the curses in Genesis 3. Although God says women will have pain in childbirth and men will have to toil hard to gather food, we do whatever we can to reduce that pain and toil. Correspondingly, it is completely in line with God's process of redemption that we seek to overcome barriers to communication. It's interesting that in the early Christian church, God used the opposite strategy from what he employed at Babel: empowering the apostles to speak multiple languages so that all people would understand the news of the risen Christ (Acts 2).

The first reference in the Bible to writing is in Exodus 17:14, where God instructs Moses to write on a scroll so that the defeat of the Amalekites would be remembered. Moses also writes on stone -- the second copy of the Ten Commandments in Exodus 34:28. About 1400 years later, Zechariah uses a writing tablet (Luke 1:63) and Paul requests Timothy to bring his scrolls and parchments (2 Timothy 4:13). Job wishes that his words could be written on a scroll or engraved so that they would endure forever (Job 19:23 - Job 19:24).

Trumpets are used for communication, especially for signals during battle or to sound an alarm. Moses was specifically instructed to make two silver trumpets to call the community together in Numbers



10:1 - Numbers 10:10. Paul makes reference to this type of signalling in 1 Corinthians 14:8 and 1 Thessalonians 4:16.

The Bible mentions a library of government archives in Ezra 6:1. This is reported quite positively, because a document retrieved from that library enabled the returned Israeli exiles to continue rebuilding the Temple in Jerusalem. This was in 5th century BC Babylon and a far cry from today's quick searches on Google! (As a historical aside, the first known example of such a library was the Hittite archives around 1300 BC -- in the time of the book of Judges. The Hittite archives probably even included a catalogue.)

## Medicine

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An important aspect of Jesus' mission was to heal the sick, and although he tended to do so by supernatural means, the Bible reflects a positive attitude towards doctors and medical treatment. For example:

- ◆ Physicians and embalming (Genesis 50:2, Genesis 50:26)
- ◆ A poultice of figs is used to heal a boil (2 Kings 20:7, Isaiah 38:21)
- ◆ The use of a splint for a broken arm (Ezekiel 30:21)
- ◆ The Good Samaritan used bandages, oil and wine to treat the victim of a mugging (Luke 10:34)
- ◆ Jesus likens himself to a doctor (Luke 5:31)
- ◆ Paul refers to Luke as the beloved physician (Colossians 4:14)
- ◆ Paul advises Timothy to "use a little wine because of your stomach and your frequent illnesses" (1 Timothy 5:23)
- ◆ God recommends that the Laodiceans buy salve to put on their eyes (Revelation 3:18)

The Biblical view, however, is that medical technology and techniques are not the whole story.

- ◆ King Asa is criticised for not praying about his illness, but only seeking the advice of doctors (2 Chronicles 16:12)
- ◆ Surely there are doctors and medicine in Gilead, but none of them can heal the spiritual/emotional wounds of Israel (Jeremiah 8:22)
- ◆ What doctors cannot heal, Jesus can! -- the women who had bleed for 12 years is a good example (Mark 5:26).

## Agriculture and biology

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Given that the Bible was written over a millenium before the industrial revolution, it is not surprising that agricultural themes abound. But note that whereas people in a hunter-gatherer society take whatever they can find, an agricultural society modifies the natural state of both plants and animals using invented techniques and tools. The following selection of verses imply the use of such technology:

- ◆ Noah grows grapes and brews wine (Genesis 9:20 - Genesis 9:21)
- ◆ Jesus turns water into wine, avoiding all that tedious growing and harvesting and brewing (John 2:1 - John 2:10)
- ◆ Jacob (which means "deceiver", and perhaps that has some relevance to the story) uses selective breeding to make his flock better than his father Laban's (Genesis 30:29 - Genesis 30:43)
- ◆ Grain storage facilities are used to minimise the effects of a famine (Genesis 41:47 - Genesis 41:49)

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- ◆ It is a law in Israel that land should lie fallow every seventh year (Exodus 23:10 - Exodus 23:11, Leviticus 25:1 - Leviticus 25:7)
- ◆ Boats and fishing nets (e.g. Luke 5:1 - Luke 5:11)

There are also metaphoric allusions based on agricultural technology:

- ◆ God will make Israel into a threshing-sledge to thresh, crush and winnow their enemies (Isaiah 41:15)
- ◆ A winnowing fork is used metaphorically for sorting people (Luke 3:17)
- ◆ If you put your hand to the plough, don't look back (Luke 9:62)
- ◆ The rich fool who builds big barns to store his wealth but then dies (Luke 12:16 - Luke 12:21)
- ◆ Christian leaders should be paid, just as the ploughman and thresher ought to share in the produce (1 Corinthians 9:10)
- ◆ Putting bits in horses mouths (James 3:3)

The Old Testament also provides an interesting note about early science. Solomon's wisdom was not only in the fields of politics, leadership, literature, spirituality etc: he was also famed for his scientific work in botany and zoology (1 Kings 4:33)

As with other areas of technology, the Biblical authors portray an acceptance of agricultural technology, and a respect for those who use that technology. In Luke 5 for instance, Jesus honours the work of Simon and other fishermen, and in several incidents recorded in the Gospels he is happy to make use of boats for his own purposes. On the other hand, Jesus calls the fishermen to leave their technology in order to follow him. Nets and boats are not enough for true life: sometimes not even enough to catch fish! You also need knowledge and, by implication, spiritual insight.

In a passage encouraging generosity, Paul notes that it is God who provides both seed to the sower and bread for food (2 Corinthians 9:10). The first is fairly obvious: seeds are part of the natural order whose creator is God, and for that we should give thanks. But what is less obvious is that God is the provider of bread as well. Although people harvest the grain, process it into flour and cook it to make bread, the grain, the wood for the fire, the iron for the baking tray, and our creative ingenuity were all provided by God. Regardless of the role we play as co-creators, and regardless of the control we can impose over nature using our technology, in the final analysis, all things come from God.

## Military technology

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There are probably more references to military technology in the Bible than any other category. References to swords, shields, spears and arrows litter the Old and New Testaments, with the same sense of acceptance, though not always approval, as other types of technology. There is no comment or assumption that military technology is inherently bad.

The first mention of a weapon is the sword wielded by an angel to keep people away from the Tree of Life (Genesis 3:24). Many verses represent God as metaphorically wielding weapons, for instance:

- ◆ God is a shield to us (Psalm 3:3 and half a dozen other Psalms)
- ◆ God's arrows discipline us (Psalm 38:2) and shoot down evil-doers (Psalm 64:7)
- ◆ God has tens of thousands of chariots (Psalm 68:17)

## Chariots

Chariots were advanced technology at the time and receive several notable mentions:

- ◆ The wheel is first mentioned in conjunction with Egyptian chariots (Exodus 14:25)



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- ◆ After the Israelites had moved into the Promised Land, they were unable to displace some groups "because they had iron chariots" (Judges 1:19) although shortly afterwards they routed an army with 900 iron chariots (Judges 4:13 - Judges 4:16)
- ◆ God uses a chariot of fire to take Elijah away (2 Kings 2:11)
- ◆ Solomon had 1,400 chariots (2 Chronicles 1:14), at least some of which were imported from Egypt and resold to other nations (2 Chronicles 1:17).
- ◆ Philip ministers to an Ethiopian eunuch in his chariot (Acts 8:26 - Acts 8:40)

## Moral neutrality?

The same materials can have different technological applications. Indeed, the same technology can be used for both war and peace, for good and for evil. For example, the prophets Isaiah and Micah both looked to a future peace in which people will beat their swords into ploughshares and spears into pruning hooks (Isaiah 2:4, Micah 4:3). On the other hand Joel saw a time when the reverse would be needed (Joel 3:10).

Paul refers to our bodies as weapons that can either be instruments of wickedness or of righteousness (Romans 6:13, see Vine's Expository Dictionary of New Testament Words on the interpretation of "instruments" as weapons). People are like tools that, in the cosmic war, are used to advance one side or the other. Our bodies, as technology, are not neutral, nor mindlessly forced into service: Paul calls us to choose the purpose to which we will offer ourselves.

Paul repeats a similar message in 2 Timothy 2:20 - 2 Timothy 2:21. It is unimportant whether we are made from gold and silver, or from mere wood and clay. In either case we can choose to become an instrument for either noble or ignoble purposes.

The New Testament writers present a more non-violent attitude than the Old Testament, undermining any belief that God's kingdom should be imposed by military force.

When Peter uses a sword to protect Jesus, Jesus rebukes him (Matthew 26:51 - Matthew 26:53, Luke 22:50, John 18:10). (This seems a bit strange in Luke's account because he records Jesus as asking for two swords to be brought along -- Luke 22:36 - Luke 22:38.)

Paul is clear that the weapons used by Christians are not the weapons of the world (2 Corinthians 10:3 - 2 Corinthians 10:5). We are to put on the spiritual rather than physical armour of God, and that includes only one offensive weapon -- "the sword of the Spirit, which is the word of God" (Ephesians 6:13 - Ephesians 6:18) and that is "sharper than any double-edged sword" (Hebrews 4:12).

## Technological superiority

1 Samuel 13 describes how the Philistines don't allow the Israelites to have blacksmiths and charged the Israelites a fee to sharpen their garden tools. This is an example of restricting an enemy's technological abilities for military advantage. Dominant nations still benefit from technological superiority, creating a cycle in which technology provides a power advantage and that power allows the technological superiority to be maintained.

Nevertheless, the Bible points out that military technology is not what decides a battle. Our trust in technology to save us is not always warranted.

- ◆ David beat the more heavily equipped Goliath with a stone and slingshot (1 Samuel 17)
- ◆ "Some trust in chariots and some in horses but we trust in the name of the Lord our God"(Psalm 20:7). Woe to those who do trust in chariots rather than seek God (Isaiah 31:1).

## Miscellaneous references

Other references to weapons include:



- ◆ A tent peg was used as an offensive weapon by Deborah (Judges 4:21).
- ◆ Siege ramps are mentioned first in 2 Samuel 20:15, but also in 2 Kings, Job, Isaiah, Jeremiah and Ezekiel. It seems likely that these ramps were simply piles of dirt.
- ◆ A mighty army is described as having arrows that are like skilled warriors -- an early form of intelligent weaponry! (Jeremiah 50:9)

## Idolatry

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Perhaps the most significant risk of technology is that by allowing some degree of control over our environment, technology can lead us to assume that we have no need for God. That leads to idolatry and brings a new kind of enslavement.

Old Testament warnings against idolatry frequently include comments on the technological origin of idols. For instance, in the incident when Israel grew impatient waiting for Moses and started to worship a Golden Calf, it is clear that Aaron gathered gold jewellery, melted it, cast it into the shape of a calf, and fashioned it with a tool (Exodus 32:2 - Exodus 32:4). When confronted by Moses, however, Aaron denies the use of tools (Exodus 32:24). This may imply a belief that what occurs naturally is good, but that manufactured goods are not. But more likely, it is simply a denial of responsibility, like a child's "I didn't touch it, it just broke".

Psalms 115:2 - Psalm 115:8 describes the futility of worshipping idols of silver and gold, made by human hands. In the modern world we rarely see this kind of superstitious approach to idols, and yet passages like this remain powerful as commentary on a materialist worldview. The materialist atheist cannot see God in the world and asks us where he is, blind to the fact that God is sovereign. They can manufacture all manner of goods, even computers and robots. But such creations are a poor imitation, not really seeing or speaking or hearing or smelling. Of course, in this age, the manufactured goods are far more sophisticated than the idols of old, and computers can indeed perceive and respond to the environment. Nevertheless, they are mere machines, lacking the inner life of humans. Those who believe otherwise end up suggesting that we too are mere machines: perfectly fulfilling the prediction in Psalm 115:8. And even if they were to succeed in making machines with human powers, they would be no closer to understanding the God who made heaven and earth nor being open to God's blessing (Psalm 115:15).

Isaiah adds to this by explicitly posing the question of whether any idol could be greater than God (Isaiah 44:6 - Isaiah 44:20). Yahweh is the first, last and only God. A blacksmith or a carpenter may fashion an idol, but so what? The blacksmith still gets hungry, tired and thirsty like anyone else. The carpenter uses the same wood as his carved idol for kindling a fire to cook on! Can't he see that the wooden idol he created is a lie? (A sub-text here is that craftsmen and technologists should have a sense of humility about their work.)

Jeremiah uses a humorous picture to say much the same as Isaiah: A craftsman shapes an idol with a chisel, adorns it with silver and secures it with a nail to stop it falling over -- but it is no more powerful than a scarecrow in a melon patch! (Jeremiah 10:3 - Jeremiah 10:5). Furthermore, every goldsmith should be shamed but their idols: their images are frauds; worthless objects of mockery (Jeremiah 10:14), as is everything that seeks to displace God from the centre of our worship.

## Measurement

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Measurement is an essential component of technological development and requires its own forms of technology.

The Old Testament frequently warns against dishonest instruments or standards of measurement (Leviticus 19:35 - Leviticus 19:36, Deuteronomy 25:13 - Deuteronomy 25:16, Proverbs 11:1, Proverbs 20:10, Proverbs 20:23, Amos 8:5, Micah 6:11). Fair measurement is a pre-requisite for a just economy.

Measuring lines and plumb lines are mentioned in both literal and figurative contexts (e.g. 2 Kings 21:13, Isaiah 28:17, Amos 7:7 - Amos 7:8, Revelation 11:1)

The Bible records numerous census undertakings, including the Roman census that brought Mary and Joseph to Bethlehem (Luke 2:1).

All these forms of measurement highlight a mindset that values quantity over quality, which is a basic foundation for technical thought.

## Responsibility

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Tools are subservient to their user: an axe cannot raise itself above the one who swings it (Isaiah 10:15). In this context, God is wielding Assyria as a weapon against Israel and it is inappropriate for Assyria -- as the tool -- to think that they acted independently. A similar point is made in several places (e.g. Isaiah 29:16, Isaiah 45:9, Romans 9:21) about the relationship between a clay pot and the potter. As a more general saying, however, this verse points out that no technology is greater than it's wielder, but merely a tool in the wielder's hand. (As a side note, Jacques Ellul has argued that technology in the modern world has taken on a substantially different mode of operation in which human control plays virtually no part.)

Nevertheless, the Bible accepts that accidents will happen with technology (Ecclesiastes 10:9) and that nobody may be at fault. One purpose of the designated "cities of refuge" was so that people could escape retribution for such accidents. Deuteronomy 19:5 describes, as an example, how an axe head might fly off and kill someone. As long as there is no malice in the act, the user of technology is not to blame for unintended negative side-effects.

Jesus also makes it clear that the victims of technological accidents are not to blame, as though the accident was punishment for their personal sin (Luke 13:4).

On the other hand, we cannot simply divorce ourselves from the damage that technology may do. Israel's first OH&S policy is recorded in Deuteronomy 22:8: people should build a railing around their roof to prevent anyone from falling off. From this verse and Leviticus 19:16, we could infer a general principle that people have a responsibility to pre-empt technological dangers. Modern legal interpretations of negligence and duty of care reflect the same idea.

People in positions of power have additional responsibilities in their use of technology:

- ◆ The responsibility to use measuring instruments and standards fairly (Leviticus 19:35 - Leviticus 19:36, Deuteronomy 25:13 - Deuteronomy 25:16, Proverbs 11:1, Proverbs 20:10, Proverbs 20:23, Amos 8:5, Micah 6:11)
- ◆ The responsibility to not deprive others of the technology they require to make a living. For instance, Deuteronomy 24:6 points out that one should not take someone's millstone as security for a debt.

## Trust God rather than technology

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As technology advances, the temptation to believe that we can solve all our problems via technology grows stronger, and the perceived need to trust God diminishes. The tendency to overstate our independence from God is evident from as early as Genesis 11, when humanity sought to "make a name for ourselves" by building a city and a tower that reached to heaven.

In good times, it becomes easy to fool ourselves into thinking that we achieved technological Utopia by our own cleverness. Deuteronomy 6:10 - Deuteronomy 6:12 and Deuteronomy 8:10 - Deuteronomy 8:14 warn against forgetting the Lord in such times of prosperity. Perhaps more than ever, humanity in the 21st century thinks that our technological creations are making a perfect life for us. But in reality, we accept something far inferior to the abundant life that God intended. This is exactly what God said

## A Christian Response to Technology

of the Israelites in Jeremiah 2:13 -- God offers a spring of living water, but we are content with broken cisterns of our own creation.

As Job tells his friends (Job 28), our many achievements do not lead to real wisdom. Humanity mines for silver and iron, refines gold and copper, turns dark into light, digs deep for sapphires, tunnels through rocks, and explores the sources of rivers (vv1-11). But do we find wisdom (v12, v13, v20)? It cannot be bought (vv15-19) and it is hidden from the eyes of every living thing (v21). "God understands the way to it and he alone knows where it dwells" (v23). "The fear of the Lord – that is wisdom, and to shun evil is understanding" (v28).

We might imagine that our money makes us impregnable like a well-built castle (Proverbs 18:10 - Proverbs 18:11) or that military superiority will protect us (Isaiah 31:1), but in the end security only comes from trusting God. Israel often found that by trusting God they could overcome enemies who had superior technology: walled cities (Deuteronomy 3:4 - Deuteronomy 3:6), chariots (Judges 4:13 - Judges 4:16) and giants with swords (1 Samuel 17).

The Lord has a day planned when all human arrogance -- lofty towers, fortified walls, trading ships, idols of silver and gold -- will be brought low (Isaiah 2:12 - Isaiah 2:22). Although this is a condemnation of arrogance rather than of technology, how often does humanity show its arrogance by seeking power and control through technology? In the end, humans are an insubstantial breath (v22).

There should be no doubt that God is greater than any technology. Everything was created by the power of God's Word. That divine Word is sharper than any double-edged sword (Hebrews 4:12) and provides the cornerstone of our faith. "Some trust in chariots [i.e. human technology] and some in horses [i.e. the natural world], but we trust in the name of the Lord our God" (Psalm 20:7).